Communities of Practice, Networks & Technologies: The Dynamics of Knowledge Flows within Third Sector Organisations in the North East of England

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Abstract

The purpose of this research is to assess the function, form and content of knowledge sharing in communities of practice, social networks and the use of collaborative technologies in Third Sector community networks in the North East of England. This is a significant area worthy of detailed examination due to the acknowledged relationship between communities of practice, social networks and the use of collaborative technologies. These three domains have been examined separately by others and suggestions have been made as to relationships between them but few, if any, studies appear to have used case-based evidence to explore how these relationships add value to knowledge sharing.

The research addresses the following research question:

> *To what extent does the use of collaborative technologies in communities of practice and social networks, in the Third Sector of the North East region, add value to face-to-face knowledge sharing and how may this be measured?*

In order to answer the research question a qualitative holistic case study approach based upon three case studies in Newcastle upon Tyne, South Tyneside and Sunderland has been utilised and grounded theory is used to formulate theory from the observed and analysed practice of the case studies under investigation.

The conclusion is drawn that when value is added to knowledge sharing it is relative to the strength of several key variables, including, reciprocity, trust, the strength of network ties and the ability to integrate the use of collaborative technologies into ongoing activities. To aid analysis of the presence and strength of these variables a working paradigm has been designed and developed. Case studies are analysed through this paradigm leading to the development of a theory of knowledge sharing in the Third Sector.

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Author's declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work.

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1. Introduction

1.1. Overview

This study analyses the relationship between communities of practice, social networks and the use of collaborative technologies in Third Sector organisations in the North East of England. These three areas of activity (communities of practice, social networks and the use of collaborative technologies) are not mutually exclusive as they are utilised by individuals and become tools which add value to both individual and organisational activity. The study attempts to evaluate this added value by analysing how these tools are used in three particular case studies.

The growth and development of communities of practice (groups of people that create, share and exchange knowledge) is relative to situated learning (learning that is contextual and embedded in a social and physical environment) (Brown & Duguid 1991; Orr 1996; Lave & Wenger 1991; Wenger 1998, 2000; Wenger et al. 2002). This growth and development requires varied means of creating dialogue where meaning flows through communities (Foucault 1972). Initially, however, the quality of the dialogue may not be as important as the process of democratic engagement as this process of engagement is often about allowing people to explore new ideas and to discard those that are not fit for the purpose of developing the community (Adamic et al 2003). Evidence also suggests that identity of the community can emerge through consensual agreement on what is community-based knowledge in the emerging dialogue (Davenport & Prusak 1998).

Social networks,(networks formed for personal development), on the other hand, appear to vary not only with regard to the skills and experience of leaders, mentors and learners but also in relation to where they are located within community space (Cross et al. 2002; Cross & Parker 2004). It would be relatively easy to map social networks if community spaces were mutually exclusive and static. However, such spaces are mutually reliant and dynamic, and, as such, they are capable of highly complex topologies (Krebs 1998).

Within these complex topologies, individuals often fail to realise how useful particular knowledge is to others (Allee 1997; Davenport & Prusak 1998). An individual may have knowledge used in one situation but be unaware that other people at other times

and places might face similar situations (Berger & Luckman 1996). In addition, knowledge derived for one particular need may be helpful in totally different contexts, or it may be a trigger for innovation. Many innovative developments come from making knowledge connections across different disciplines and organisational boundaries (Uzzi 1996; Borgatti & Cross 2003).

So, a major reason for the lack of knowledge sharing in organisations is the constraint of time and space (Hildreth et al 2000). Individuals within organisations are often pressurised by deadlines and constant movement to the extent that they find it difficult to share knowledge. It is often problematic to find time to add lessons learnt to the organisational knowledge database or have a knowledge sharing session with colleagues (Huysman 2000, 2004). Other barriers often cited are a mix of structural and infrastructural barriers combined with social, behavioural and psychological factors. Such factors include functional silos (parts of organisations where functions are so rigid as to prevent the flow of knowledge), individualism, ineffective means of knowledge capture, inadequate technology, internal competition and top-down decision making (Uzzi 1996, 1997).

The Third Sector, under investigation in this study, consists of a wide-ranging collection of organisations, including voluntary organisations, community-based organisations, charitable trusts and social enterprises, dealing with many different groups of people frequently sharing a common set of values or beliefs on a particular issue. All aim to be socially inclusive in terms of their customers, products and service delivery. They range from a Tenants Association which believes housing conditions should be improved to a Citizen's Advice Bureau which advises people seeking valuable advice on a wide range of issues. As such, they appear well placed to take particular advantage of the added value of combining face-to-face networking with computer-mediated communications.

The Sector consistently displays several shared characteristics, largely defined formally by the UK Charity Commission, which are significant in understanding their actual and virtual networking needs, such as:

- being non-profit making, or, where profits are made they must be re-allocated within the organisation;

- having independent legal status;
- and, having autonomous (or semi-autonomous) missions and systems of management.

The fact that the Third Sector is non-profit making is significant because they are not necessarily driven by the need to make large amounts of money from marketing their products and services. However, larger organisations are expected to conform to the standards of best value observed by the public sector. This is because they are usually in receipt of public funds via either local or central government. Many also draw substantial funds from issue-oriented charitable trusts and foundations.

The legal status of the Third Sector ranges from unincorporated associations to registered charities. Increasingly, organisations are established as charitable limited companies. Systems of management and objectives of such organisations vary greatly. Some larger organisations have formal line management systems while others operate as worker co-operatives or collectives. Their objectives are wide ranging from loosely formed campaigning groups to more tightly formed organisations to deliver a specific type of product or service. As such, they demonstrate an organisational culture distinct from public and private sector organisations. They do, however, share some of the characteristics of small-to-medium private sector enterprises in the commercial or retail world. Many of these small-to-medium private sector enterprises have used computer-mediated communications particularly well as they have:

- low operational costs;
- flexible working methods;
- a high capacity for organisational change.

Because Third Sector organisations have relatively low operational costs, flexible working methods plus a high capacity for organisational change they are very attractive ways of delivering services on behalf of central government and local authorities. Many organisations act as deliverers of local authority services because they can do this more cheaply and more flexibly than a large organisation. Due to the scale of the organisation, they are capable of quite rapid change which often proves difficult for more formal, larger organisations.

1.2. Uniqueness

It is clear, from the above, that each individual organisation appears to operate according to its own internal dynamics that impact upon the effectiveness of knowledge sharing. They create their own principles and laws, both written and unwritten which also affect the form and function of knowledge sharing. Often perceptions, such as time and space, for example, are unique to particular organisations (Davenport & Prusak 1998; Choo 1998).

The theory of communities of practice, in the above context, has been widely discussed in a range of publications, and some studies of communities of practice, which are either collocated or dispersed within organisations, have been undertaken, but, to date, there is no study of Third Sector communities of practice within a UK regional government framework. Such a study has relevance to future policy formulation in that knowledge clusters are seen as significant in the creation of a stable and sustainable regional economy (Brown & Duguid 2002).

This research views communities of practice as informal learning networks operating both within and beyond the remit of formal organisations. It also attempts to identify the underlying patterns of behaviour within organisations which impact upon knowledge sharing by the creation of a working model of the dynamics of knowledge sharing, face-to-face, within communities of practice, social networks and through collaborative technologies.

1.3. Research question

The research question for this study has been formulated to reflect the need to examine the relationship between knowledge sharing in face-to-face and technology-mediated environments through communities of practice and personalized social networks. Furthermore, the North East of England is seen as forming a realistic context for the case studies in terms of both its well-defined geographical and governmental definition as region. So, the research question is as follows:

> To what extent does the use of collaborative technologies in communities of practice and social networks, in the Third Sector of the North East region, add value to face-to-face knowledge sharing and how may this be measured?

1.4. Research aim

The aim of the research is:

to explore how a working model of knowledge sharing in the Third Sector may be designed and developed.

1.5. Research objectives

The objectives, within the Third Sector, are to:

1. Analyse the political, social, economic and cultural context of knowledge sharing.
2. Evaluate the interaction between communities of practice and social networks as knowledge sharing platforms.
3. Map the relationship between face-to-face dialogue and the use of collaborative technologies in knowledge sharing.
4. Develop a pilot model of how knowledge sharing adds value to organisational activity.

Chapter 5 addresses the first and second objectives while the third objective is addressed in Chapter 6. Chapter 7 contains details of the working model suggested in the fourth objective.

1.6. Rationale

The research design of this particular study acknowledges the extensive body of theory on communities of practice, personalized social networks and the use of collaborative technologies which is referenced in Chapter 2. This body of theory has led to the adoption of a qualitative methodology (Miles & Huberman 1994; Patton 2002) within a combination of holistic, embedded, multiple case study design (Yin 2003a; 2003b). The qualitative tools used are non-participant observation, questionnaires, interviews, document, archives and artefact analysis. Case studies, in particular, are the preferred strategy for the research as the researcher has no control over the events under scrutiny. Multiple case study design allows for comparison between the researcher's and the subject's views of the world.

Scoping of the fieldwork consisted of initial, informal meetings with key players in each of the case studies. This scoping exercise served as an introduction to the research area

for informants, agreement on a data collection protocol and agreement on a positive outcome for the case study, for example, a research paper. Detailed non-participant observations were made of many meetings within each case study. This non-participant observation proved useful as a means of identifying sources of knowledge creation, capture and transfer within the case study. The questioning phase of the research involved the completion of a structured questionnaire for practitioners. A number of methods of circulating questionnaires have been deployed, such as, mailing and distribution at meetings. Interviews were undertaken with both key practitioners and key transactional agencies. The interviews with practitioners were sometimes a follow up to questionnaire responses, or, alternatively and more commonly the completion of the questionnaire face-to-face followed by supplementary questions. The interviews with transactional agencies were semi-structured. The final phase, a form of member-checking, involved feeding back major and sometimes minor findings. This gave the case studies the opportunity to reflect on practice, while, at the same time, serving to validate key findings for the researcher.

1.7. Structure

This chapter has presented an initial overview of the subject area and its context. It has also provided an introduction to the preferred methodology, the nature of the fieldwork and a description of respondents. A statement of the relevance of the research question is followed by a statement of the aims and objectives of the research and an explanation of the rationale for the research. The final three sections present initial introductions to the concept of knowledge, the role of the Third Sector and the political, social and economic context of the North East of England.

Chapter 2 is a review of the literature for the research. It begins by examining the key concepts of communities, networks and technologies and the significance of these concepts in understanding how knowledge is shared. Communities and communities of practice are then examined in greater detail. The review then examines the relationship between individual and organisational learning highlighting the importance of experiential learning. The importance of culture and organisational culture is followed by the relevance of social networks and these sections are related to the role of collaborative technologies in knowledge sharing. Finally, drawing together all the previous strands of the review the literature is explored on the problems of defining, managing and sharing knowledge which lies at the core of the research question.

Chapter 3 is an analysis and explanation of the methodology deployed. It starts with the ontological perspective of the research: the relationship between the individual and the social reality it occupies. An overview of the research design is followed by a detailed examination of the methodology and process of case study analysis. The next sections outline the tests for the existence of the phenomena of the research: communities, networks and technologies. Data sources are then examined and the relevance of developing a data collection protocol is then referenced. The final sections refer to the fieldwork and analytical processes.

Chapter 4 describes the case study networks in the context of the political and socio-economic environment of the North East of England in which they operate. Each case study is described in terms of its individual context, origins and structure. An overview of the use of each network's website offers an initial insight into the current use of collaborative technologies.

Chapter 5 begins the detailed exploration of the fieldwork findings, which continues in Chapters 6 and 7, in the context of the research aim and objectives by using the parameters of a meta-governance model to perform an in-depth analysis of knowledge sharing in communities of practice.

Chapter 6 explores the architecture of knowledge sharing by examining how knowledge sharing is enabled in social networks and analysing how collaborative technologies are used to enable knowledge sharing in both communities of practice and social networks.

Chapter 7 addresses the issue of added value (referred to in the research question) by examining the use of collaborative technologies in communities of practice and social networks. It goes on to design and develop a working paradigm of knowledge sharing in the Third Sector through examining how knowledge is formatted and networked providing a platform for both individual and collective learning. A way forward is suggested by providing an initial theory of knowledge sharing in the Third Sector. The final section (7.5) provides a summary and conclusion of the thesis.

Chapter 8 presents a reflective exploration of the research experience including, reflections on the chosen methodology, the limitations of the research and the contribution to knowledge. It concludes by offering suggestions for further research.

2. Knowledge sharing in communities: related work

2.1. Introduction

This literature review begins by offering a definition of the Third Sector followed by a contextual overview of the North East of England, the area of operation of the chosen case studies. The Third Sector is then viewed in the light of the development of ICT policy in the UK. The second section, on knowledge sharing, offers a working definition of knowledge which is then considered in the context of what constitutes appropriate and effective sharing of knowledge. This consideration of knowledge sharing is followed, in the third section, by a review of literature on communities of practice. The problematic of community space is considered and the theory of groupthink is examined along with a review of learning theory and organisational culture. In the fourth section, theories on network behaviour are discussed and the fifth section provides an analysis of the use of collaborative technologies in the knowledge sharing process. In the final section, the relationship between the Third Sector, knowledge sharing and communities of practice is explored.

It should be noted, from the outset, that the form of the literature review is limited by the lack of literature available on Third Sector communities of practice, personalised social networks and their use of collaborative technologies. The lack of focused literature, however, was a key driver in the adoption of the research. The Third Sector is undergoing a significant change in its role as project manager to one of knowledge manager. This change is heralded by the government of the UK as being essential for the Sector to engage appropriately and effectively with the global knowledge economy. It is, therefore, of paramount importance that the Sector understands its use of communities of practice, social networks and collaborative technologies in the way other sectors are attempting to understand them.

2.2. What is the Third Sector?

Voluntarism can be referred to as the idea that human relations should be based on voluntary cooperation to the exclusion of political compulsion (Herbert 1978). In recent years, there has been a deliberate attempt to engage the Third Sector in the political agenda for change (Cabinet Office 2006). This engagement has now extended to include social enterprise and social entrepreneurship as well as the community and voluntary

sectors, collectively entitled the Third Sector (Kendall & Almond 1998). As result, government defines the Third Sector as 'that place between the state and the private sector' (Cabinet Office 2006).

The Third Sector has developed due to a need to find new and innovative solutions to issues affecting the health and social welfare of individuals and groups and to satisfy the needs of members and users which have been ignored or inadequately fulfilled by the private or public sectors (Clayre 1980; Gidron et al. 1992; Knight et al. 2002). By using solutions to achieve not-for-profit aims, it is believed that the Third Sector has a distinct and valuable role to play in helping create a strong, sustainable, prosperous and inclusive society (Cabinet Office 2006).

Traditionally, the Third Sector has consisted of two distinct strands, consisting of either the provision of services or pressure for change. Often, in the past, organisations have provided services as well as campaigning for change. The engagement of the Third Sector in the political agenda of central government mentioned above has resulted in some organisations either being providers of services procured by government agencies or protesting at the impact of social policy (Fisher & Fox 2001). This division causes conflict within the Sector as to its nature and the order of civil society within the UK (Knight et al. 2002) as some organisations see the Sector as simply a service provider while others herald the traditional campaigning role of the sector. However, a compact between government and the Sector has resulted in an affirmation of six key functions of the Sector (Cabinet Office 2006):

1. Creating cohesive communities and building a collective voice for citizens.
2. Implementing partnership working to deliver a shared governance agenda.
3. Shaping and delivering public services.
4. Creating sustainable resources.
5. Promoting innovation and enterprise
6. Creating a culture of volunteering and mentoring.

The complexity of this matrix of knowledge sharing has significant implications for the use of communities of practice, social networks and collaborative technologies within the Third Sector which will be explored throughout this thesis.

2.2.1. The emergence of the Third Sector within the political, social and economic context of the North East of England

The North East of England, North of the Tees valley to the Scottish border and West to the Pennines, has a sense of regional identity which can be traced back over a number of centuries. St.Cuthbert, in the seventh century (Tomaney 2002a; 2002b; 2003), brought spiritual identity and unity to the region. Following this Christian unity, the Barons of the region were united in their support for Eric Bloodaxe, the Norse king, in his failed attempt to become King of England in the tenth century. In a more recent development, the part played by the North East during the industrial revolution resulted in a specific pattern of regional development from 1760 to 1960 (McCord 1979). This powerful regional identity and unity, however, as in other parts of the world, created complex patterns of localised learning and uneven socio-economic development (Morgan 2001). In an attempt to arrest these patterns, the UK government's Neighbourhood Renewal Unit (2001a; 2001b; 2001c; 2002) introduced a number of policies which currently define the role of the Third Sector in the North East.

Examination of thirty years of academic studies of urban renewal illustrates the significance of the Third Sector to the process of socio-economic development (Davies 1966). Some of these studies have ably demonstrated that regional identity can be exploited to gain socio-economic advantage (Saxenian 1994; Lee et al. 2000; Brown & Duguid 2002). The North East Assembly (2001) was established to progress such advantage. It is supported in this role by the creation of a Government Office for the North East and the regional development agency One North East which are assisted by various changes in local government and planning regulations at a national level (Department of Transport, Environment and the Regions 2000).

Such measures have created complex patterns of the governance referred to as meta-governance (Jessop 1998). Such theory frequently calls into question the legitimacy of the state (Wolf 2001) which conflicts with the political policy agenda of central government. If we define meta-governance as the organisation of organisations, traditional, functional organisations, such as local authorities, divided into specific areas of responsibility, tend to lead to the fragmentation of knowledge within these organisations (Weick 1995). Market-oriented organisations, such as Third Sector care providers, constantly seek out new markets frequently not meeting the wider needs of their customers (Belbin 1998; 2000) and failing to access this key knowledge base.

Team-based organisations, such as urban and rural regeneration partnerships, are too frequently vertically and horizontally dispersed to be effective (Lipnack & Stamps 1994; 1997) resulting in pillars and strata of knowledge which are difficult to access. However, governments are beginning to realise the importance of knowledge sharing for running the public sector and are starting to practise it (Cong & Pandya 2003) by supporting knowledge sharing activities in the Third Sector.

The publication of the Community Empowerment Fund guidance (Neighbourhood Renewal Unit 2001b), in July 2001, was heralded as a 'new dawn' for the Third Sector. Involvement in governance (Newcastle City Council 2001) was broadly supported throughout UK Government Departments, Local Authorities and Development Agencies operating within the emerging regional government framework for the North East of England, such as, Government Office North East and One North East. Some of the ideas within the guidance had originated in a series of cross-sector Priority Action Teams established by the Cabinet Office when the first government, with Tony Blair as Prime Minister, took office (Department of Trade and Industry 2000). It was seen by the senior civil servants promoting it, based within the Neighbourhood Renewal and Social Exclusion Units, as a means of government offices moving from their historic role as project and programme managers towards a knowledge management system of neighbourhood renewal (Neighbourhood Renewal Unit 2002). Local Authority officers saw the guidance as an opportunity to forge new partnerships with existing community networks while offering new community networks an enhanced status within an emerging regional government framework. All agencies viewed the guidance as a key component of a coherent strategy of social inclusion and socio-economic development (Newcastle City Council 2002a; 2002b).

An important aspect of the guidance was the exploration of new forms of governance (Stoker 2003; Moran 2005). It recognised that many community networks operate on the periphery of centre-periphery relations. The guidance gave these networks the opportunity to move legitimately from the periphery towards the centre (Lave & Wenger 1991) by redefining the formal decision-making process within the emerging regional government framework. This re-definition of the policy making framework has significant implications for the process of knowledge sharing in the Third Sector.

Another key aspect of the guidance was the use of the term social exclusion (the exclusion of disadvantaged people from the opportunities that exist in the wider society). Dudley (2000) expresses the view that social exclusion is a complex issue and offers an explanation that includes the dimensions of information and knowledge. There is little participation and sharing of resources, poor information and knowledge flow, little choice, and individuals are subjected to external forces over which they have little control. There is a self perpetuating habit of non-participation, isolation, lack of opportunity and choice.

However, due to the complex nature of post-industrial society, social exclusion is multi-dimensional, therefore, solutions to the problem must necessarily be wide ranging. Percy-Smith (2000) stresses the 'need for holistic joined-up partnership and multi-agency responses' (p.17) to address the issues. This statement follows the development of policies and strategies used by government to tackle social exclusion.

It is clear, then. that the terms social exclusion and social inclusion are often used interchangeably, and while social inclusion is perhaps a more positive way of describing a desired state it is inherently exclusive (Vincent 2001). Vincent maintains that the term social inclusion is often mistakenly substituted for social exclusion. Vincent is concerned that inclusion pins policy on moral and spatial issues and not on the root problems. He goes on to state that often those that are considered as socially excluded are not necessarily part of government targets.

The consensus among researchers and policy makers such as Room (1995), Glennerster et al (1999), Bradshaw et al (2000) and Dutch (2000) is that social exclusion is complex, a broader concept than simply poverty and insidious in its effects. Social exclusion is not a permanent state of affairs, neither does it describe an homogeneous group, nor are those who are labelled socially excluded necessarily discontented. The spiral of social exclusion is difficult to escape and the contributing problems tend to be inter-related. Social exclusion may occur through homelessness, through lack of access to public services, through inability to buy the latest fashion or through inability to afford leisure activities.

Page (2000) researched three particular neighbourhoods and revealed that although those vulnerable to social exclusion might be in the minority, their norms and values

tend to dominate the culture of a whole community and the way it was viewed locally. Most respondents in Page's research appeared content with where they lived and spent much of their time close to home. Their main concerns were getting by from day to day. Neighbourhood-based life was important because it occupied a large part of their daily life and provided their social networks. They did not perceive high rates of joblessness as significant nor did they regard themselves as 'poor' or socially isolated and most were well connected locally to supportive peer networks.

2.2.2. The rise of meta-governance

Current changes in governing tasks that face the political systems in liberal democracies require governance to be performed in new ways (Bogdanor 2005) that impact directly upon the Third Sector and its role as a joint decision-maker. Governance can no longer take the form of sovereign rule but must be performed through various forms of meta-governance, regulation of self-regulation (Jessop 2004). The meta-governance of policy networks is crucial for understanding contemporary governance, public and Third Sector management. This importance is true at all levels of government, from neighbourhood, through national to international level.

One of the principal requirements of meta-governance is creating greater coherence among the various actors involved in the process of governing. The usual assumption about producing coordination is that it is best produced through hierarchical controls, including using the powers of prime ministers' office, finance ministries, and from other central agencies (Bogdanor 2005). Likewise, the common assumption is that coordination must be around the values and ideas of those central organisations and their policy preferences. From the perspective commonly used at the heart of meta-governance coordination will have to come from the top-down (Sorensen & Torfig 2003).

An alternative view is that the most effective forms of coordination may be from the bottom up, rather than from the top down. Organisations and individuals at the bottom of networks, and which are the objects of public policies as well as potentially involved in their development, may have a better sense of the impact of a range of policies than do policymakers at the top of the pyramids. Many groups and other social actors are involved in a range of policy networks, and can help to identify the needs for coordination, as well as to negotiate across that range of policy areas. Networks are

almost inherently coordinating devices, bringing together a range of actors with a mixture of both competitive and collaborative interests (Tihonen 2004).

The major question than emerges from the above discussion is how to square the coordination capacity that can be present at the bottom of the governance system with the need to supply some common direction to policies. Those two perspectives on producing coherence appear contradictory, and if viewed simply would they be. The managerial, or meta-governance task, therefore, is to identify a way of squaring this apparent circle. This process appears possible through at least two methods. The first method would be to use the various social actors that are involved with different networks can function as collaborators in the process of coordination. This would involve delegation of some powers to the members of the network, albeit in the contest of established goals, or perhaps better phrased meta-goals (Klijn 2005).

An alternative mechanism for using networks for coordination is to use them as monitoring devices. Rather than being given autonomous powers to negotiate and to make decisive policy choices, networks may be used more to assess what is happening in the policy area and to provide feedback to government. The recipients of services delivered by government generally are capable of assessing the true impact of programs, albeit generally in a self-interested manner, and hence their feedback is important for improving performance. This is especially true given that some populations, such as, the socially excluded, are the consumers of a wide range of programs and can identify coordination problems very directly (Pierre & Peters 2005).

Several key questions of meta-governance are relevant to this study (Koppenjan & Klijn 2004):

1. What are the sources and mechanisms of governance network performance?
2. How can differing kinds of meta-governance create self-regulating governance networks?
3. What are the inherent potentials and problems in governance networks?

2.2.3. The Third Sector and the development of ICT policy in the UK

A UK government paper 'Government Direct' (1996) initially set out the government's vision to increase the electronic delivery of information and services

and raised the problem of ensuring universal access. The Third Sector began to contemplate whether universal access was, in itself, a sufficient solution for the Sector and an alliance was formed between national, regional and sub-regional Third Sector organisations led by the Community Initiatives Division of IBM to look at the wider issues of the information society.

Growing from this alliance, three reports, jointly produced by IBM and the Community Development Foundation (IBM 1997a, 1997b, 1997c) highlighted the potential for a 'digital divide' within communities. These reports referred to three main strands to the Information Society debate:

1. The technological: which focuses on the impact and power of the technology to transform many of the things we do.
2. The economic: which tends to stress that the new technology will be good for business and that organisations should adopt it quickly or perish.
3. The socially-divisive: which draws attention to the potential of the technology to widen the gap between those who have it and those who do not.

The reports also referred to the ability of the new technology to give ordinary people and community groups access to inexpensive publishing and broadcasting media, the power to express their knowledge, describe their activities to a wide audience and give validity to their experience (Loader 1998; Hague and Loader 1999).

It was also during this period that a consortium of community networks in the UK was formed known as UK Communities Online. UK Communities Online commissioned Terry Grunwald, an experienced community networker from the USA, to assess what made community networks work. Grunwald (1997) highlighted four key network functions within face-to-face networks which could be replicated through the use of collaborative technologies. These were communication, accessing information, achieving visibility and collaboration and are described as follows:

1. Communication: involves communicating one-to-one or one-to-many, flexibly and informally, via email and mailing lists.
2. Accessing information: involves the appropriate employment of search engines and databases to store and retrieve information.

3. Achieving visibility: involves creating text, data and multimedia profiles for new ideas and projects.
4. Collaboration: involves using email, databases and collaborative software to work collectively and remotely on projects.

Eighteen Priority Action Teams were set up at the end of 1998 to provide essential building blocks for the National Strategy for Neighbourhood Renewal. Billed as the biggest example to date of 'joined-up' government (a process in which government departments worked together to mutual benefit for the social good), they represented a significant departure from the usual policy making models. Priority Action Team 15 was responsible for ICT development and it included a number of Third Sector representatives and received evidence form a number of community networks. Sunsequently, Priority Action Team 15 made three key recommendations:

1. Building on what already exists or is planned, each neighbourhood should have at least one publicly accessible, community-based facility to complement any home access.
2. Access should be encouraged through local "champions".
3. The plethora of funding mechanisms should be rationalised.

UK Online Centres were set up in existing community centres and libraries that already had a role in informal and formal community based learning. The aim of the centres, through open and flexible access to ICTs, was to bridge the gap between those in society who have access to and are able to use information and communication technologies competently and those who could not. These centres, however, were criticised by many in the Third Sector due to the lack of revenue funding for their effective operation. Due to this lack of revenue, a number of centres, in key locations were forced to close within two to three years.

In March 2000, the UK government allocated £10 million to a series of pilot projects: the WiredUp Communities Programme. Seven geographical communities of up to 4000 people each across the UK experiencing levels of social exclusion were provided with home internet access, computers, and technical support. WiredUp Communities Programme sought to investigate whether this would enable the communities to overcome the barriers to use of the Internet, and if digital access

to learning opportunities, government and other web services would foster social inclusion. The WiredUp Communities Programme was 'experimental' without defined delivery structures or goals, and highly variable combinations across projects. The pilot projects illustrated the difficulty in wiring up a 'whole community' and the varying success of the pilots after the funding period had finished draws attention to difficulties of ensuring sustainability.

In 2004, a number of Local Authorities that had been given exemplary practice Beacon status by government, established Electronic Village Halls and E-champions with the Third Sector. These initiatives, however, while increasing the skills of individuals did little to improve the strategic capacity of the Sector (Dudley 2000).

During 2004, a key Third Sector partnership of the National Council for Voluntary Organisations, the Community Development Foundation and Ruralnet successfully lobbied the UK government's Home Office to establish a network of support services to the sector with a controlling hub based in London. The ICT Hub is a partnership of national Third Sector organisations. This partnership provides a range of services to help Third Sector organisations benefit from ICT. The Hub's research has shown that the Third Sector is struggling with basic ICT such as carrying out backups and networking computers.

Nevertheless, the above programmes represent significant attempts to use collaborative technologies to offer the Sector and citizens to reclaim their voice in a period, during which, increasing decentralisation of decision-making was mirrored by declining democratic participation (Norris 2002). Riley (2003) contends that attempts at e-democracy are, in fact, a subset of the e-government framework focusing on how citizens interact with government, influence legislation or the public sector process. As such, the extension of the use of collaborative technologies can be viewed as an extra arm of governmental policy-making. In contrast to this, the potential of collaborative technologies lies in the abilty to re-invent governmental processes based upon new participatory contexts (Rushkoff 2003).

Blumler and Coleman (2001) observe that public disquiet with government allows the Internet to be seen as a place to build an electronic commons. In the online

landscape of the electric commons new forms of civil society can be nurtured with collaborative technologies at the heart of civic engagement.

2.3. Knowledge sharing

Before defining knowledge, we must first attempt to differentiate it from data and information. Data can be described as "a set of discrete, objective facts about events" (Davenport & Prusak 1998: 2), or as, "facts, pictures, numbers – presented without a context." (Brooking 1999: 4). Information, on the other hand, could be described as "organised data presented in context" (Brooking 1999: 4). Checkland and Holwell (1998) redefine data in the context of human interaction by coining the term 'capta' to describe the data which individuals capture while disregarding that data which they assess as insignificant.

Wilson (1981) observes that information is a 'troublesome concept' and debate about its definition is certain to continue. Case (2003) broadly defines information as 'whatever appears significant to a human being, whether originating from an external environment or an internal world' (p.40). Within this definition, however, information appears to mean anything an individual chooses to define as information. Buckland (1991) posits that whatever one might learn from can be called information and concludes, 'we are unable to say confidently of anything that is not information' (p.356). Significantly, Dervin (1980) stresses it is important to look at 'information as a user construct rather than as an observer construct' (p.95).

The term information remains a conundrum despite the fact that we see ourselves as living in an 'Information Society'. Information, as a commodity, it would seem, evades definition. This view is shared by Badenoch et al (1994) and others (Levitan, 1980). Indeed, Childers (1975) suggests that information is a word that 'defies definition' (p.20), while Fairthorne (1965) advises that 'information and its derivatives are words to avoid' (p.10).

Orna (1999) suggests that information is 'what human beings transform knowledge into when they want to communicate it to other people. It is knowledge, made visible or audible, in written or printed words, or in speech' (p.8). Chen and Hernon (1982) hold a similar perspective, taking information to be 'all knowledge, ideas, facts, data, and imaginative works of mind which are communicated formally and/or

informally in any format' (p.5). Vickery and Vickery (cited in Hill, 1999) conclude that information not only communicates knowledge but can modify the state of knowledge.

Brooking clearly highlights the importance of the difference between data and information. This lies within the context within which each is set. She then goes on to describe knowledge as 'information in context together with an understanding of how to use it.' (Brooking 1999: 5) What makes knowledge different from data and information is that human beings, information technologies or a combination of both have interacted with that data and information and added value to it. Nonaka and Takeuchi (1995: 58) emphasise two human values, in particular, which differentiate knowledge from information, namely, beliefs and commitment. Churchman (quoted in Davenport & Prusak 1998: 7) had previously emphasised the point almost twenty five years earlier:

> To conceive of knowledge as a collection of information seems to rob the concept of all of its life...Knowledge resides in the user and not in the collection. It is how the user reacts to a collection of information that matters.

The contextual argument can be developed further by describing knowledge as (Davenport & Prusak 1998: 5):

> A fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information.

2.3.1. Tacit and explicit knowledge

It is useful to identify two types of knowledge: explicit and tacit (Polyani 1966; Nonaka and Takeuchi 1995). Explicit knowledge is communicated in language, via documents and databases while tacit knowledge is deeply rooted in action, commitment and involvement in a specific context (Johannesen et al. 2001; Smith 2001). A number of specialists on the practical use of knowledge in organisations suggest that they deliberately integrate tacit and explicit knowledge from the outset (Hildreth & Kimble 2004).

There is another type of knowledge: virtual knowledge (Cutcher-Gershenfeld et al 1998). It is an ephemeral form of knowledge derived from a particular combination of people focused on a given task (Harryson 1998). It is argued that where there is collective task sharing and problem sharing a body of knowledge is created peculiar to that task and is not shared in other ways. As a result, virtual knowledge is context-specific to the particular task. It is claimed it can only be effective in environments free of fear, established procedures for collective problem solving and where there is stability in group composition (Tiwana 2003).

Ba, 'place' in English, describes the shared physical, virtual or mental space for relationship interaction and ultimately as a foundation for knowledge sharing (Nonaka & Konno 1998; Krogh et al. 2000). Of the 'places' where knowledge sharing takes place, face-to-face meetings provide the focus at which discussion of the content of external and internal documents, emails and informal discussions is aired in an open exchange between members of groups (Nardi & Whittaker 2002).

Clearly, the concept that knowledge can be stored in the human memory documents or electronically is crucial to understanding how knowledge is shared. In practical terms, community knowledge sharing was pioneered by the Eureka project (Bobrow & Whalen 2002). The Eureka project leveraged the practical know-how and inventions of frontline employees, with the goal of helping the entire organisation learn from their experience.

The project was considered a success overall, but experienced two problems. First of all, the project needed a distribution and access method that would fit how technicians viewed added value.

Secondly, service technicians liked the idea that their knowledge could travel beyond their own workgroup, but were concerned about several issues: "If they submitted a tip, would it disappear into a black hole? Would they get credit? How would they know they could trust all the tips? And how would they get the right tips at the right time?" (Bobrow and Whalen: 51).

Does the above exploration bring us any closer to a working definition of knowledge? A practical working definition of knowledge is that provided by KPMG (1997: 5) and it is the definition utilised in this study:

> The information contained within the organisation about customers, products and services etc., which is contained within people's minds or filed in analogue or digital format.

2.3.2. Knowledge sharing in organisations

How, then, can organisations share knowledge effectively? A short answer is that offered by Apple's Steve Jobs; "hire smart people and let them talk to one another!" (quoted in Davenport and Prusak 1998). Brooking (1999 p.105), however, refers to knowledge flowing through a number of channels, apart from individuals: formal and informal networks, briefings and debriefings, documents, workshops and shared experience (Madsen et al 2002). Each is beyond the power of a single individual as suggested by Jobs.

The culture of knowledge sharing is not singular but is wide and varied (Brown & Duguid 1998), it is relative to its political, socio-economic and organisational environment (Albert & Bradley 1997). Knowledge sharing also varies in a multi-cultural setting (Ford & Chan 2003) as language differences can create knowledge boundaries, and cross-cultural differences can dictate the direction of knowledge flows.

Unstructured, informal knowledge sharing is considered by some to be vital to success (Gibson & Rogers 1994). Face-to-face meetings are considered important channels for sharing knowledge and many attempts have been made to replicate face-to-face conversations through the use of collaborative technologies (Nishida 2002). Explicit knowledge can be embedded in procedures or represented in documents and databases and transferred with reasonable accuracy. Tacit knowledge sharing generally requires extensive personal contact (Nonaka and Takeuchi 1995) and frequently relies on artifacts for the co-ordination of the process of sharing (Hildreth 2000; Kreiner 2002).

> In the new economy, conversations are the way knowledge workers discover what they know, share it with their colleagues and in the process create new knowledge for the organisation.
> (Webber 1993: 28)

Talk is now considered to be 'real' work. When you need to share knowledge, however, the method must always suit the organisational culture or conversations are not absorbed by the organisation. Mechanisms for encouraging knowledge sharing need

to allow for spontaneity as conversations originate in informal and unstructured patterns which tend to militate against some forms of organisational culture (Davenport and Prusak 1998). Common ground, coupled with trust, is important because people cannot share knowledge if they don't speak a common language. The status of the 'knower' is also relevant as people judge the information and knowledge they receive on the basis of who gives it to them (Dhar 1997). The greater an organisation's understanding of the process of knowledge sharing within and beyond its boundaries the better it is placed to market its knowledge appropriately and effectively (Huseman 1998; Albert and Bradley 1997; Argote 1999). Organisations are subject to internal and external knowledge markets, and, in some organisations, knowledge is capable of providing, 'real added value to the customer for which they are prepared to pay a premium' (Brooking 1999 p.6).

Market forces tend to drive the need for knowledge sharing (Sveiby 1997). This process works in a similar manner to markets for more tangible products and services. People search for knowledge because they expect it to help them succeed in both their work and personal development (Munz 1985). Organisations install e-mail or collaborative software and expect knowledge to flow freely through the electronic pipeline. When it doesn't happen, they tend to blame the software or inadequate training than to face a fact of life: people rarely give away valuable possessions, including knowledge, without expecting something in return (Skyrme 1999). Knowledge sharing marketplaces are subject to political change (Stewart 1997): sociology, economics and political science being the lenses needed to see how effective knowledge-based organisations are in the marketplace in order to impact upon the future (Amidon 1997; Allee 1997; Leonard-Barton 1998; Despres & Chauvel 2000; Tuomi 2002).

As a result of the many difficulties encountered in codifying knowledge many organisations have attempted to map knowledge (Wexler 2001) as part of a wider knowledge auditing process. A knowledge map points to knowledge but does not contain it. It is a guide not a repository (Funes & Johnson 1998). Developing a knowledge map involves locating important knowledge in the organisation and then publishing some sort of list, image or picture that shows where to find it. Knowledge maps point to people as well as documents and databases (Liebowitz & Chen 2001). Fuld and Potter (1999) usefully describe knowledge mapping as "the ability to match specific strategic and tactical business needs with the sources themselves."

2.3.3. Knowledge sharing and the problem of community space

The traditional gathering place of community activists for centuries has been the village hall, community centre or their physical equivalent; the place of democratic engagement and dialogue on issues affecting the community (Willmott 1986; Lee and Newby 1983; Crow and Allan 1994). Community activists often put forward the view that it is possible to create an equitable community space, both mental and physical, where the views of individuals and groups can be freely exchanged. Such a belief can be seen as an extension of the concept of agora where the creation of a 'level playing field', by definition, leads to engagement in the free expression of ideas and opinions (Arendt 1958; Baudrillard 2001).

Several commentators have grappled with the concept of community space (Goffman 1959; Castells 1989; Wenger 1998; Lefebvre 1991; Lash 2002). They have revealed a complexity which goes far beyond that manifest in village halls and community centres. In order to understand this complexity, the following concepts are examined in turn, the reproduction of space, defensible space, 'the space of flows', the semiotics of global space, community space and 'liminal' space.

Lefebvre's (1991) discourse on the relationship between mental and physical space highlights not only the production of community space but also the reproduction of this space:

> The problematic of space, which subsumes the problems of the urban sphere...and of everyday life, has displaced the problematic of industrialisation. It has not, however, destroyed that earlier set of problems: the social relationships that obtained previously still obtain; the new problem is, precisely, the problem of their reproduction. (Lefebvre (1991): 89)

In physical terms, former British Prime Minister Winston Churchill went some way to expressing this relationship when he said:

> There is no doubt whatever about the influence of architecture and structure upon human character. We shape our buildings and afterwards our buildings shape us.

Building upon the idea of human structures, Goffman (1959) derived the concept of 'defensible space', the cognitive space between individuals where they form opinions and assumptions of others. In physical space we can visibly assess people's changing opinions through human interaction, which is supported by body language. In cyberspace, however, where body language can play a different part, defensible space becomes the space of legitimate peripheral participation. Discourse and dialogue in cyberspace can often be viewed as significantly more reflective than that which takes place in physical space.

Castells (1989) argues that access to exchanges of information and knowledge is the key to participation in the networked society. He refers to a subtle interaction between physically co-located resources and virtual information-based resources. He calls this space 'the space of flows'. This suggests a further dimension to community space. The space of flows being the personal space, which individuals manipulate, in and around the groups they populate. They create this space by constructing complex problem-solving personal social networks. These networks manipulate information and knowledge on a personal level through a complex web of digital technologies and face-to-face interaction.

Lash (2002) interprets the global space of flows to which Castells refers as a space where a new form of post-modern semiotics has emerged. Global economic organisation has created a myriad of symbols which signify the economic worth of products (such as the Nike 'swoosh') while countercultures use other symbols to signify their cultural differentiation, such as, the Napster logo of a 'cool' cat with headphones. This signification process means that groups are subject to high levels of interpretative semiotics which impact upon individual and group behaviour in community space.

Wenger et al. (2002) talk of a 'community space' in which groups tend to operate (Figure 2.1). The facilitators, innovators and leaders occupy the core space. Active, interested individuals inhabit the active space. Interested individuals, who are not necessarily active, occupy peripheral space and the transactional space is where partnerships are forged. This paradigm suggests the existence of four distinct community spaces. It does not, however, explain how groups apparently move, with ease, from one space to another or alternatively occupy several spaces simultaneously.

For example, individuals may well occupy core space in one group, active space in another and so on.

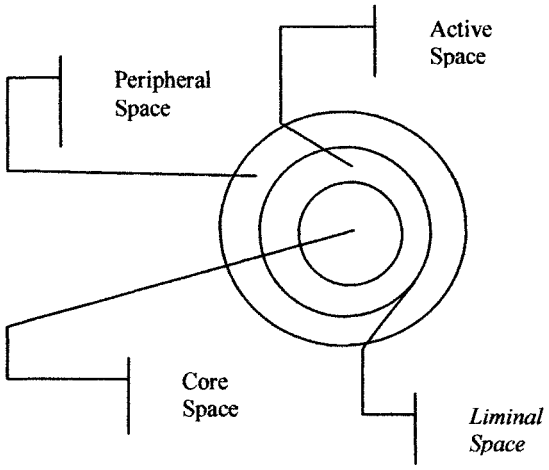


Figure 2.1: Wenger's model of community space
(Derived from Wenger et al. 2002)

If this model is applied to the Third Sector, we see the founders of a new community, usually low in number occupy the core space with traditional community activists occupying the active space. Peripheral space is occupied by those interested in the new community but cannot commit time to the community's development.

By introducing the concept of 'liminal' space, we can envisage how individuals and groups journey between the spaces outlined above. Liminal space, an anthropological term, refers to the 'limbo' which an individual inhabits while performing a rite of passage between one space and another. A physical example of this space is the Aboriginal 'Walkabout' where teenage aborigines must spend time alone surviving in the outback prior to acceptance as an adult member of the group. A comparison can be made here with the concept of a 'lurker' in an electronic environment. 'Lurking' in an electronic environment would be considered a form of situated learning by Lave and Wenger (1991), and, as such a legitimate form of peripheral participation. Adding the concept of liminal space to the paradigm creates a new dynamic, which does, at least, appear to go some way towards illustrating how individuals and groups occupy several spaces simultaneously.

Finally, Puttnam (2000) refers to the bridging and bonding of social capital within communities. Social capital is created either by forming bridges between communities or bonding communities where they share common characteristics. It is, therefore, legitimate to suggest that social capital is formed in liminal space. Other commentators (Bourdieu 1977; Fukuyama 1999) have referred to the existence of a form of social capital, beyond bonding, 'binding', which ties individuals relative to their social position within the wider society.

2.4. Communities of practice

If we seek to understand the relationship between communities, technologies and networks perhaps we should begin by asking ourselves what is a community and why should we be concerned with the concept?

Since the late nineteenth century (Elias 1974, quoted by Hoggett 1997: 5):

> use of the term community has remained to some extent associated with the hope and the wish of reviving once more the closer, warmer, more harmonious type of bonds between people vaguely attributed to past ages

Before 1910 there was little social science literature concerning 'community' and it was really only in 1915 that the first clear sociological definition emerged. This was coined by C. J. Galpin in relation to delineating rural communities in terms of the trade and service areas surrounding a central village (Harper and Dunham 1959: 19). A number of competing definitions of community quickly followed. Some focused on community as a geographical area, some on a group of people living in a particular place, and others which looked to community as an area of common life.

Whether people are disposed to engage with one another is dependent upon the norms of a particular society or community – and the extent to which individuals make them what de Tocqueville, writing in the first half of the nineteenth century, called 'habits of the heart' (1994: 287). This leads us to a discussion of community as a value which involves the creation of tolerance, reciprocity and trust. To judge the quality of life within a particular community we need to explore what shared expectations there are about the way people should behave and whether different individuals internalise these expectations.

One of the fascinating things about these qualities is that in a very important sense such expectations do not need to be imposed upon people. As Ridley (1997: 249) puts it:

> Our minds have been built by selfish genes, but they have been built to be social, trustworthy and cooperative.

To this extent, the cultivation of reciprocity, honesty and trust is less about building institutions and structures, than creating the conditions for their emergence. Self-interest may bring people together, but in interaction something else emerges (Hofstede 1991).

The collective purpose of a community, the goals and roles of the individuals in a community all influence social interaction in the community and create social capital (Putnam 1993; Fukuyama 1999; Gargiulo & Benassi 2000). Sometimes a community is defined by sharing a common set of values or beliefs such as a faith-based community. Within the social framework defined by the community's purpose and policies, people strive to satisfy their own needs. Thus the purpose, people and policies comprising a community determine what it is like. Each community is unique and there is no recipe for a successful community (Preece 2000). However, some commentators argue that a sense of community is frequently imagined and has no visible presence (Anderson 1991), therefore, the illusion of a sense of community should also be considered as a factor in patterns of individual and group interaction.

Lave and Wenger's work (1991) and the work of Brown and Duguid (1991) can be considered as major breakthroughs in both academic and practice-oriented debates about informal learning, knowledge-sharing and organisational management. Central to their work is the concept of a community of practice. Wenger at al. (2002) define communities of practice as:

> groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.
> (Wenger et al 2002: 4)

Communities of practice are viewed as a particular form of community (Lesser & Storck 2000). They consist of groups of people who share a common set of values concerning learning, meaning and identity (Lave and Wenger 1991; Wenger 1998).

They demonstrate many of the characteristics of other groups in their capacity to create collective knowledge (Collison & Parcell 2002; Saint-Onge & Wallace 2003; Brown & Duguid 1991), however, this collective knowledge is shared through practice and it is this which differentiates them from other groups (Wenger et al. 2002).

Communities of practice can also be considered as informal learning networks. Central to the concept of communities of practice as informal learning networks is the process of 'legitimate peripheral participation':

> 'Legitimate peripheral participation' provides a way to speak about the relations betweens newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. A person's intention to learn is engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice, This social process includes, indeed it subsumes, the learning of knowledgeable skills.
> (Lave and Wenger 1997: 29)

The significance of legitimate peripheral participation is its recognition of knowledge gap between veterans and newbies in terms of practice. It recognises the need to create a periphery for learning within this gap and actively encourages newbies to probe and question the knowledge of the veterans.

Rather than looking to learning as the acquisition of certain forms of knowledge, Lave and Wenger (1991) have tried to place it in social relationships. Learners acquire structures or models to understand the world and they also participate within frameworks. Learning involves participation in a community of practice. And that participation 'refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the practices of social communities.

Lave and Wenger (1991) illustrate their theory by observations of different apprenticeships, such as, midwives, tailors and quartermasters. Initially people have to join communities and learn at the periphery. As they become more competent they move more to the centre of the particular community. Learning is, thus, not seen as the acquisition of knowledge by individuals so much as a process of social participation.

The nature of the situation impacts significantly on the process. Learners inevitably participate in communities of practitioners and... the mastery of knowledge and skill requires newcomers to move toward full participation in the socio-cultural practices of a community.

In this there is a concern with identity, with learning to speak, act and improvise in ways that make sense in the community. What is more, and in contrast with learning as internalization, 'learning as increasing participation in communities of practice concerns the whole person acting in the world' (Lave and Wenger 1991: 49). The focus is on the ways in which learning is an evolving, continuously renewed set of relations. In other words, this is a relational view of the person and learning.

This way of approaching learning is something more than simply 'learning by doing' or experiential learning. The concept of 'situatedness' involves people being full participants in the world and in generating meaning. This orientation has the definite advantage of drawing attention to the need to understand knowledge and learning in context.

Wenger et al. (2002: 27) also refer to three fundamental elements of a community of practice:

1. A domain of knowledge which defines a set of issues.
2. A community of people who care about this domain.
3. A shared practice that they develop to be effective in the domain.

Only when these three elements attain a dynamic relationship can a community of practice become fully functional.

Communities of practice appear to go through a series of life-cycle phases (Wenger 1998; Wenger at al 2002):

- Potential: being discovered and prepared for activity.
- Coalescing: being initiated and incubated.
- Maturing: focusing and expanding
- Stewarding: creating a sustainable environment and renewing activity.

- Legacy: letting go of their identity and reviewing the lesson learnt from their activity.

Wenger's model of phases of development of communities of practice (Lave & Wenger 1991; Wenger 1998; Wenger 2000; Wenger et al 2002), that is potential, coalescing, maturing, stewarding and legacy, adopts a linear view of change within them (Gongla & Rizutto 2001). This appears paradoxical when compared with the multi-dimensional view of the concepts of participation and reification which are put forward in other parts of Wenger's work. Any linear view of the development, sharing and transferring of knowledge lends itself to images of eccentric scientists, working alone, who then link to other eccentric scientists to create projects which attempt to solve complex problems. These images are as far from reality today as they ever were.

Figure 2.2 (below) illustrates the relationship between the differing stages of development of communities of practice.

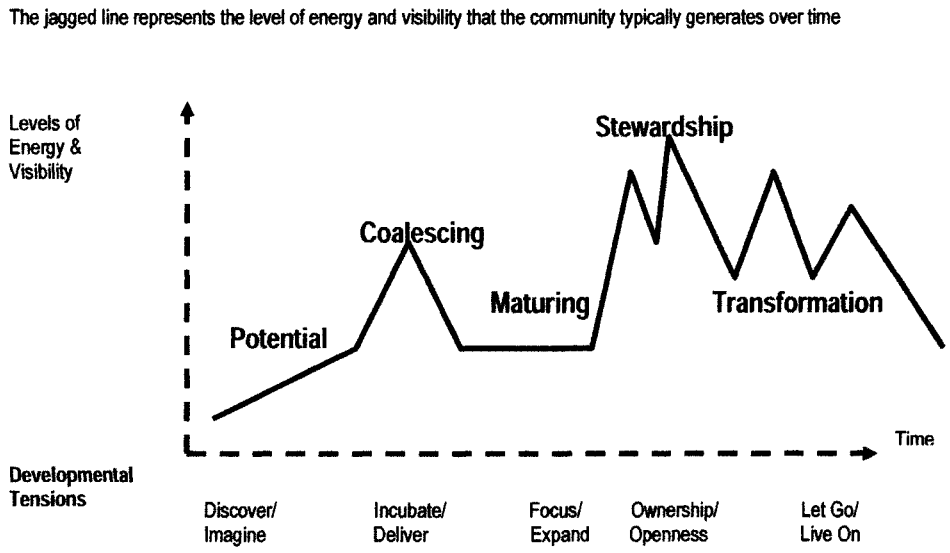


Figure 2.2: Stages of development of communities of practice

(Source: Wenger et al. 2002)

The impact of communities of practice is also relative to how they are viewed by other external organisations (Wenger et al 2001; Saint Onge & Wallace 2003; Collison &

Parcell 2001). Table 2.1 shows the various forms of relationships between communities of practice and official organisations.

RELATIONSHIP	DEFINTION	TYPICAL CHALLENGES
Unrecognised	Invisible to the organisation and sometimes to members themselves	Difficult to see value and be aware of limitations, may not involve everyone who should participate
Bootlegged	Only visible informally to people 'in the know'	Getting resources, having an impact, keeping hidden, gaining legitimacy
Legitimised	Officially sanctioned as a valuable entity	Broader visibility, rapid growth, new demands and expectations
Supported	Provided with direct resources from the organisation	Scrutiny; accountability for use of resources, effort and time; short-term pressures
Institutionalised	Given an official status and function within the organisation	Fixed definition, overmanagement, living beyond its usefulness

Table 2.1: Relationships of communities of practice to official organisations
(Source: Wenger et al. 2002)

Some commentators (Snowden 2000; 2002; Mutch 2003) offering critiques of Wenger's schema, have attempted to build what appear to be knowledge ecology and cognitive models of community development to compensate for this linear view. Snowden's work emphasises the significance of knowledge-sharing spaces and the ecological links between them; Mutch examines Wenger in the light of Bourdieu's theory of 'habitus' (Bourdieu 1977). Habitus is an internalised set of dispositions in which an individual transports between differing learning environments and, in turn, impacts upon individual and collective learning. Mutch examined communities of practice of publicans in the UK and discovered that they possessed an identifiable set of competencies and transferable skills which they brought to groups in varying ways. These core skills appeared to change little as individuals moved from group to group.

What is clear from the work of Wenger and his critics is that communities of practice change, progress through differing phases of development, are subject to a series of dynamic core-periphery relations and view peripheral participation as a legitimate part of community of practice activity.

2.4.1. Groupthink

Groups are not static by nature, they are constantly forming, disbanding and reforming in a state of flux, which creates a propensity to feel either inside or outside a particular group (Janis 1972; 1992). An individual can also be an insider in a number of groups at the same time as being an outsider in others. As a result of this reality, there have been a number of attempts to analyse the development of groups and their phases of development, such as, Lipnack and Stamps (1997) and Belbin (2000).

Irving Janis first coined the term groupthink in 1972 when considering a range of psychological case studies of 'fiascoes', such as, the attack on Pearl Harbor and the Cuban Missile Crisis. He was struck by the high degree of miscalculations of those involved in the fiascoes and the inability of those involved to think outside the confines of the group, hence, the term groupthink. He went on to define the term in detail:

> I use the term "groupthink" as a quick and easy way to refer to a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' striving for unanimity override their motivation to realistically appraise alternative courses of action...Groupthink refers to a deterioration of mental efficiency, reality testing, and moral judgment that results from in-group pressures.
> (Janis 1972: 9)

What is relevant in the above quote to this thesis are the key components of groupthink and how they may be applied and tested against in-groups and out-groups within communities of practice.

Groupthink compounds the following four key socio-psychological components which are particularly relevant to building successful communities of practitioners:

1. a mode of thinking;
2. personal involvement in a cohesive group;
3. a search for unanimity;
4. a failure to appraise alternative courses of action.

Janis goes on to outline eight symptoms of groupthink which are preceded by a range of antecedent conditions which establishes its context. This leads to a concurrence-seeking tendency, which affects decision-making leading to a low probability of successful outcomes.

The eight symptoms of groupthink are:

1. Illusion of invulnerability: the group is incapable of being wrong.
2. Rationalisation: the group's end justifies the means.
3. Inherent morality: the group feel what they are doing is best for everyone.
4. Stereotypical thinking: the group employs preconceived notions in evaluating information.
5. Mind guards: group members who take it upon themselves to protect the group from information that contradicts prevailing opinion.
6. Pressure on dissenters: group members aggressively "go after" colleagues who disagree with the general sentiments of the group.
7. Self-censorship: group members willingly refrain from voicing opposition to the prevailing sentiments of the group.
8. Illusion of unanimity: the belief, within the group, that silence is an indication of agreement.

Such symptoms will be familiar to anyone with personal experience of working in a project-based or task-orientated group. They are frequently rationalised by victims of groupthink by the use of glib phrases, such as: *"Better to be inside the tent looking out; than outside the tent looking in!"*

Groupthink provides an insight into decision-making which has significant implications for how we assess the depth and range of individual and organisational learning.

It is possible to formulate a matrix (Table 2.2) by which we can demonstrate the manifestations of groupthink which may occur in communities of practice, groups and cliques (informal, restricted groups with a shared interest).

Manifestation	Group	Clique	Community of Practice
Illusion of invulnerability	*Feeling of comfort and security*	*Demonstration of blind faith*	*Innovative, pioneering and impassioned*
Belief in morality of the group	*Well-motivated*	*Openly fanatical*	*Doing things which need to be done*
Collective rationalisation	*See things the same way*	*Can't think for themselves*	*Generalises from its collective skills and experience*
Stereotypes of out-groups	*Know who they are*	*Overtly prejudiced*	*Realises the existence of other communities but sees them as protective of other values*
Self-censorship	*Demonstrate loyalty*	*Afraid to say what they think*	*Knows what needs to be shared and at what level*
Illusion of unanimity	*Know each other's minds*	*"Brainwashed"*	*Realises consensus is transient*
Direct pressure on dissenters	*Exhibit loyalty*	*Coerce other members*	*Accepts difference of opinion but not to its detriment*
Self-appointed mindguards	*S/he keeps us focused*	*Thought police*	*Accepts the pedagogic role of veterans*

Table 2.2: Manifestation of groupthink in communities, groups and cliques
(Walker et al.:2004 - derived from Janis: 1972)

This matrix begins to draw out the differences between communities, groups and cliques operating in the community spaces mentioned above. The concept of a clique provides a useful unit of comparison to communities of practice and other groups as cliques can potentially exist both within in-groups and out-groups and have powerful destabilising effects. It should be acknowledged, that this matrix offers a very basic understanding of the complexity of group behaviour, however, it is useful for examining behaviour in this project.

2.4.2. Individual and organisational learning

Individual learning is the process whereby knowledge is created through the transformation of experience (Kolb 1984). It is a three phase activity and involves:

1. Making observations and reflections on experience.

2. Forming abstract concepts and generalisations based on these reflections.
3. Testing these ideas in a new situation which gives new experiences.

Theories of individual learning can be placed into four major orientations:

1. Behaviourist (Thorndike 1919; Skinner 1973)
2. Cognitivist (Piaget 1926; Gagne 1985)
3. Humanist (Maslow 1968; Rogers & Frieberg 1993)
4. Situationist (Bandura 1977; Lave 1988; Lave & Wenger 1991)

The behaviourist approach focuses on the significance of the development and training in key skills; the cognitive approach centres on the capacity of learning how to learn; the humanist on the significance of self-directed learning; situationists conceive of learning taking place through social participation.

The approach to individual learning most appropriate to this study is that of the situationist model outlined by Wenger and his colleagues (Lave 1988; Lave & Wenger 1991; Wenger 1998; Wenger 2000; Wenger et al 2002), although, it is acknowledged that the constructivist model of Piaget can also be considered as situationist.

In practical terms, Checkland's (1981) soft systems methodology exemplifies the process of situated learning. At the core of this methodology is the reification of rich pictures collectively drawn through a process of social participation. Rich pictures build conceptual models of organisational problems to enhance understanding and problem solving and directly enhance the situated learning experience. Forms of rich pictures are frequently used as knowledge mapping tools in the Third Sector and provide a platform for individual, group and organisational learning.

According to Wenger (1991: 18), 'learning could be viewed as a special type of social practice'. Meta-networks (networks of networks) and the communities of practice associated with them provide a specific social context for learning to take place. Getting things done (Wenger 1998: 51) 'includes not just bodies (or even co-ordinated bodies) and not just brains (even co-ordinated ones, but moreover that which gives meaning to the motions of bodies and the workings of brains'. The complexity of the meta-

relationships within community networks offers a form of mediation of meaning and an opportunity to get things done.

> Theories of identity are concerned with the social formation of the person, the cultural interpretation of the body, and the creation and use of markers of membership such as rites of passage and social categories (Wenger 1998:13)

Figure 2.3 (below) shows the intersection of traditions which impact upon identity.

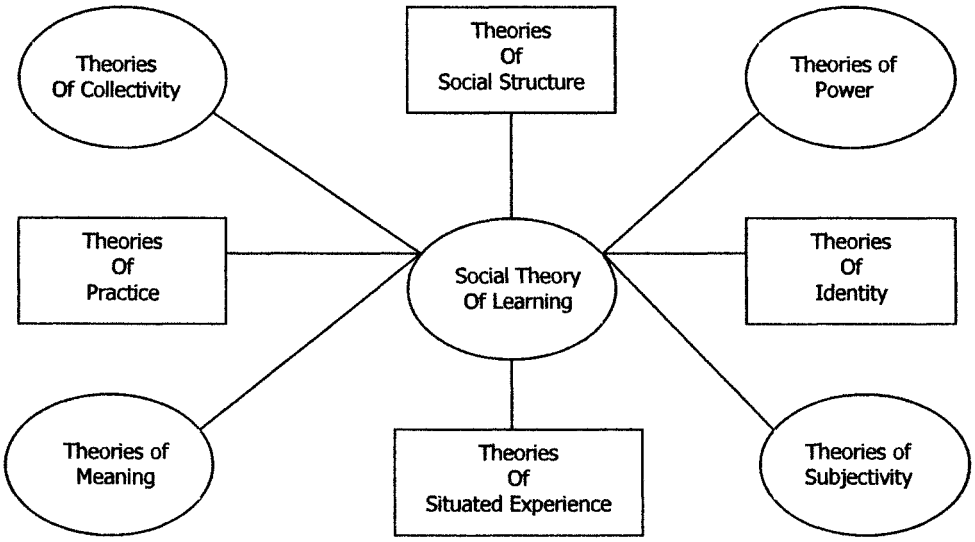


Figure 2.3: Intersection of traditions
(Source: Wenger 1998)

These intersections of tradition bring together a number of elements evident within the networks under investigation, collectivity, power, social structure and experience which will differ between individuals, organisations and partnerships. The role of communities of practice is to create a learning process which gives context to these elements. Members of community networks are familiar with these traditions and, as a result, the hub (network centre) of the meta-network and the core (community centre) of communities of practice have a significant role to play in facilitating appropriate participation in reconciling these traditions. Some had the key skills for the process of facilitation and were aware of the need to transfer skills through legitimate peripheral participation in inclusive activities and events.

Individuals learn not only as individuals but also as members of groups and organisations. Wenger (1998) offers a theory of organisational learning that starts with the assumption that engagement in social practice is the fundamental process by which we get to know what we know and by which we become who we are (Tennant 1997). The primary unit of analysis of this process is neither the individual nor social institutions, but the informal 'communities of practice' that people form as they pursue shared enterprises over time. In offering a social account of learning, the theory explores in a systematic way the intersection of issues of community, social practice, meaning, and identity. This individual and group process of learning differs from the classic, technical definition of organisational learning as outlined by Argyris (1962; 1999), Schon (1991) and Argyris and Schon (1978). Argyris and Schon (1978: 2-3) describe the technical process of organisational learning in terms of single and double 'loops':

> When the error detected and corrected permits the organisation to carry on its present policies or achieve its present objectives, then that error-and-correction process is single-loop learning. Single-loop learning is like a thermostat that learns when it is too hot or too cold and turns the heat on or off. The thermostat can perform this task because it can receive information (the temperature of the room) and take corrective action. Double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organisation's underlying norms, policies and objectives.

Organisational learning can also be defined as a three phase activity involving sense-making, knowledge-building and decision-making (Choo 1998). Kim's (1993) OADI cycle draws a parallel between individual and organisational learning through identification of a four phase learning cycle of observation, assessment, design and implementation (OADI) which applies equally to individuals as well as organisations. However, if organisations can learn, this does not mean that they necessarily learn well (Huysman 2004). A strong theme in the literature on organisational learning is the weakness of the learning system involved (Huysman 2000). The learning of the collective suffers from a startling range of limitations (Allee 1997) and some of these are equally characteristic of solo and collective learning entities (Davenport & Prusak 1998). For instance, rare, socially-constructed events, such as marriage decisions in an individual or major shifts of direction in an organisation, are difficult learning processes

because they do not occur often and by the time they occur again circumstances may have changed substantially (Berger & Luckman 1966).

Other problems of learning are exacerbated by the specifically organisational character of the learning (Brown & Duguid 1991). For example, different individuals and units within an organisation may hold somewhat different criteria of success. Also, advocates of a policy are likely to interpret any difficulties with it as reflecting an insufficiently vigorous pursuit of the policy, while opponents interpret the same data as signifying a bad policy (Hodgkinson & Sparrow 2002). Feedback about the results of organisational actions may be distorted or suppressed as people rush to protect their 'turf' or to maintain a positive climate (Brown & Duguid 2002; Saxenian 1994).

Organisations, like individuals, can learn through experience (Kolb 1984; Walsh & Ungson 1991). Many of the fundamental phenomena of learning are common to both individuals and organisations (Leonard-Barton 1998). However, organisational learning also has distinctive characteristics with reference to what is learned, how it is learned, and the adjustments called for to enhance learning (Suchman 1987). These characteristics derive from the fact that any organisation, by definition, is a collective, with individuals and larger units in different roles that involve different perspectives and values, passing information and knowledge through their own filters with information and knowledge-sharing channels connecting them.

Suchman (1987) argues that models of ICT use do not take sufficient account of the situatedness of most human social behaviour. In 'Plans and Situated Actions' (1987), she uses an anthropological illustration of the navigation capacities of the Trukese (a small island-based tribe in Polynesia) to illustrate the difference between 'charting' and 'coursing':

> Thomas Gladwin (1964) has written a brilliant article contrasting the method by which the Trukese navigate the open sea, with that by which Europeans navigate. He points out that the European navigator begins with a plan...which he has charted according to certain universal principles, and he carries out his voyage by relating his every move to that plan. If unexpected events occur, he must first alter the plan, then respond accordingly. The Trukese navigator begins with an objective rather than a plan. He sets off toward the objective and responds to

> conditions as they arise in an ad hoc fashion...His effort is directed to doing whatever is necessary to reach the objective. If asked, he can point to his objective at any moment, but he cannot describe his course. (Berreman 1966, p.347)

The concepts of 'charting' and 'coursing' are crucial to understanding how community networks function and, in turn, how they use collaborative technologies. The chart is set by central government and delivered through Government Office North East while the course is defined first of all by the Third Sector, the public sector and the Local Strategic Partnership with some limited input from the private sector. The use of technologies is defined by this definition of the journey to community empowerment. Central Government produces large strategy documents which have to be absorbed and understood by network members. The Third Sector has access to Voluntary Organisations Network North East who has the expressed brief of filtering the information and knowledge in these documents. Local Authorities have their own, in-house, staff for this purpose. The Community Network and the Local Strategic Partnership have, in most cases, set a different course to that charted by Central Government. The community networks in this study did not appear to using the collaborative nature of technologies to create a balance between planning and the need for situated action.

The learning process takes place within specific cultures. As cultures vary so can patterns of learning. Culture can impact on learning on an individual and organisational level. While we are often aware of the impact of culture on individuals we are less aware of the impact of culture on organisational performance (Hall 1966).

2.4.3. Culture and organisational culture

The Third Sector is often referred to, generically, in terms of a culture of voluntary action and support, but, how do we define the various organisational cultures that exists within the Sector?

Raymond Williams' (1971) definition of culture has been highly influential, since at least the late 1950s when it was first published. It reflects an action-structure synergy in the creation of culture and suggests it manifests itself in a number of forms. Williams

was interested in the ordinary creativity and its reflexivity in everyday life and not just 'high culture':

> Culture is ordinary: that is the first fact. Every human society has its own shape, its own purposes, its own meanings. Every human society expresses these, in institutions, and in arts and learning. The making of a society is the finding of common meanings and directions, and its growth is an active debate and amendment under the pressures of experience, contact, and discovery, writing themselves into the land. The growing society is there, yet it is also made and remade in every individual mind. The making of a mind is, first, the slow learning of shapes, purposes, and meanings, so that work, observation and communication are possible. Then, second, but equal in importance, is the testing of these in experience, the making of new observations, comparisons, and meanings. A culture has two aspects: the known meanings and directions, which its members are trained to; the new observations and meanings, which are offered and tested. (Williams 1971: 3)

According to Vygotsky (1978), in terms of social development, the thing that separates humans from other animals is the use of tools and symbols. As a result of these, we create patterns of meaning and, in turn, cultures. These cultures grow and change as we develop, and exert powerful influences on us all. They dictate what we have to learn and the sorts of skills we need for personal development. Within cultures, our interpretation of signs, signals and cues varies according to our 'perception and use of space' (Hall 1966:83). Hall refers to this phenomenon as 'proxemics'. This is a theme taken up by Hofstede in his study of culture and organisations where he points to the fact that the distance an individual is from the sources of power within an organisation defines the culture that person occupies (Hofstede 1991).

Differing cultures can exist within organisations between divisions (Alpert 1985), teams (Belbin 1998; 2000), virtual teams (Lipnack & Stamps 1997; Stough, Eom & Buckenmyer 2000) and professions (Moore 1970; Schon 1991). Similarly, differences between national, regional and sub-regional cultures can also manifest themselves within organisations (Hall 1959, 1977; Hall & Hall 1990). The role of documents within organisations can also form boundaries between cultures within organisations (Brown & Duguid 1995; 2000). The role of documents in forming cultures can be compounded by the role technology plays in organisational cultures (Levy 1998, 2001a; 2001b).

Communications are affected by cultural context which can be either high or low. High-context cultures are those in which the meaning of a communication is embedded in the situation, the relationship between the communicators and their shared beliefs, values and norms; low-context cultures are those in which relationships and situational factors play a minimal role and communications can largely be taken at face value (Hall 1977).

Hofstede views culture in terms of a series of dynamic layers (Figure 2.4). Behaviours impact upon attitudes and beliefs which create cultural values at the core of the organisation. These cultural values, in turn, create organisational sub-cultures at various levels within the organisation.

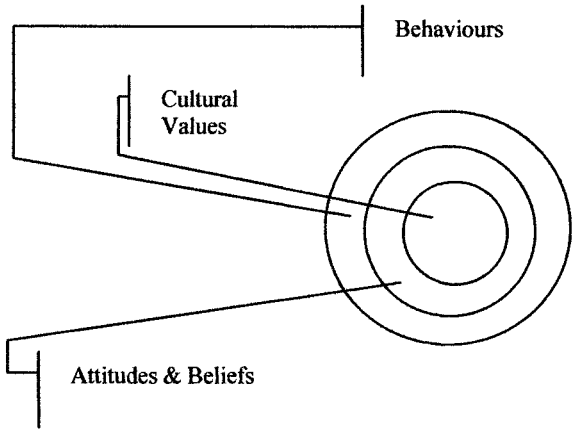


Figure 2.4: Hofstede's model of culture
(Derived from Hofstede 1991)

Three aspects of Hofstede's definition of organisational culture have potential impact on the use of collaborative technologies in the Third Sector:

1. Power distance: the degree to which an organisation expects there to be differences in the levels of power.
2. Uncertainty avoidance: reflects the extent to which an organisation accepts uncertainty and risk.
3. Individualism vs. collectivism: refers to the extent to which people are expected to stand up for themselves, or alternatively act predominantly as a member of the wider organisation.

Culture can, therefore, be defined as:

> a collective phenomenon, because it is at least partly shared within the same social environment, which is where it was learned. (Hofstede 1991: 5)

Such a collective phenomenon exists in the Third Sector and impacts upon the day-to-day operation of all organisations. When assessing the added value of technologies it is essential to measure the impact of organisational culture.

2.5. Networks

The Third Sector, in common with the whole of post-industrialised society, operates within a complex web of digital, organisational and social networks.

In this new millennium, the metaphor of the age is that of the network society. In the network society, we all live amidst an ever-increasing system of links, switches and controls governing the operation of systems allowing for data transfer and exchange among multiple users at differing levels. This is a society where the role of the individual is valued relative to the group or groups within which they function and add value. The individual's role as creator of ideas, innovation and identities is important as it increases the ability of groups of individuals to work beyond time and space in both real and virtual teams. Working in virtual teams, however, is not only a product of Internet technology but also has origins in the high-budget, special-effect world of the Hollywood movie. Partnerships are created in these multi-media productions which not only build upon the solo achievement of the novelist or scriptwriter but also on the collaborative achievement of groups and individuals working in different locations, at different times around the globe.

The Internet, of course, has played a part in creating a platform for individuals of all cultures to work collaboratively in cyberspace. This is due to the fact that the so-called 'knowledge economy' allows for the creation of a special relationship between the individual and the common good of society. In the words of the inventor of the World Wide Web, Tim Berners-Lee (1999:227):

> We believe that if we all work for what we think is individually good, then we as a whole will achieve more

> power, more understanding, more harmony as we continue the journey. We don't find the individual being subjugated by the whole. We don't find the needs of the whole being subjugated by the increasing power of the individual. But we might see more understanding in the struggles between these extremes. We don't expect the system to eventually become perfect. But we feel better and better about it. We find the journey more and more exciting but we don't expect it to end.

Berners-Lee suggests that the Internet and its wide array of applications should not only replicate human networks but should also be capable of creating new networks which expand the existing knowledge base within society. In the process of creating and updating this knowledge base individuals and groups are in a constant and instantaneous process of generating, coding and transferring both explicit and tacit knowledge.

In post-industrial societies, knowledge is embedded in both human and digital networks and actively released through the conscious realisation of the power of the knowledge to lead to positive action and outcome. Effective knowledge sharing networks, as a result, are the key to realising individual, group and organisational potential. A knowledge sharing network can be viewed as a form of human beehive where individuals, acting simultaneously as architect and builder, are engaged in the dynamic creation of honeycombed layers of intellectual, social, economic and physical capital with each layer of the beehive ecologically dependent on the other for survival. Each layer contains multiple networks, therefore the beehive becomes a network of networks.

The origins of the ongoing debate on the relationship between communities, technologies and networks can be traced back to the sociological analysis of communities prevalent in the 1950s, through the rapid technological revolution of the 1960s via the emergence of technocracy in the 1970s, to the debates on networked society in the 1980s and 1990s. Three major works (Goffman 1959; Bell 1976; Castells 1996, 1997, 1998), which span more than forty years of study of communities, technologies and networks, form the context for the conceptualisation, development and analysis of this study of communities of practice, networks and technologies.

More than twenty years before the term 'cyberspace' came into popular usage, the social anthropologist, Erving Goffman (1959), was describing the concept of how

notional space was used, in a private and public manner, by individuals within human-centred networks:

> When one individual enters the presence of others, he will want to discover the facts of the situation. Were he to possess this information, he could know, and make allowances for, what will come to happen, and he could give the others present as much of their due as is consistent with his enlightened self-interest.
> (Goffman: 249)

How we present ourselves in everyday life can be categorised in terms of defensible and user space (Goffman 1959). These terms are useful when considering how individuals perceive themselves and what they are prepared to share with others. Although Goffman used these terms to describe face-to-face networks they are equally applicable to the use of collaborative technologies. McLuhan (1964) believed that we are living in the midst of a turbulent, unseen revolution, where human technologies become extensions of the human organism and the central nervous system.

The relationship between face-to-face and collaborative technologies highlighting the differences in behaviour patterns between the two modes of communication was first analysed in the 1970s (Hiltz and Turoff 1978). Following commentators began to contemplate whether collaborative technologies were reflecting behaviour in existing human networks or creating behaviour patterns of their own (Grossman 1998; Grunwald 1997; Turkle 1996). Many of these commentators concluded that technology mediated communications have the ability to add value to human networks while simultaneously creating new behavioural patterns of their own (Wellman 2001a; 2001b).

As a result of the apparent seperation of real and virtual activity, commentators have identified evidence of a 'digital elite' which had arisen within post-industrial society (Negroponte 1996; Brown 1998). The digital elite enjoy unprecedented access to new forms of collaborative technologies. The origins of this new elite were emerging twenty years earlier as part of the birth of post-industrial society in the 1970's which led to the creation of:

> new axial structures and new axial principles: a changeover from a goods-producing society to an information or knowledge society; and, in the modes of knowledge, a

> change in the axis of abstraction from empiricism or trial-and-error tinkering to theory and codification of theoretical knowledge for directing innovation and the formulation of policy.
> (Bell 1976: 487)

Post-industrial society not only created a new platform for enlightened self-interest but also formed new social structures and technological elites (Castells & Hall 1994). In the following twenty years, however, the rapidity of technological change meant that these new structures and elites were beginning to create a new interface with electronic communities who were creating new global identities. Such is the power of this new identity that it reaches beyond the nation state and traditional socio-economic structures (Kelly 1994, 1998; Negroponte 1996; Brown 1997).

This digital divide is creating a new identity for communities, which is forcing changes within the structures of nation-state (Castells 1998: 7):

> In the network society...for most social actors, meaning is organised around a primary identity...that is self-sustaining across time and space.

The fundamental categories of existence are now being threatened by the combined, contradictory assault of techno-economic forces and social movements, each using the new power of collaborative technologies to promote their own ambitions (Castells 1997). On-line communities are creating a new power of identity outside that of the nation-state and the nation-state must learn to adapt to these changes, or, have change forced upon it. While this battle for identity takes place, there are those who argue for the independence of cyberspace, as it offers a fundamentally neutral platform for this exchange of new ideas which stem from the increasing use of collaborative technologies. Grossman (1998) describes this 'virtual realm' as a place of interconnecting communities every bit as complicated, exciting, and dangerous as any city. What engages her most are the battles, or 'net.wars', which, exist along the border between cyberspace and real life over real political, social and economic issues. Whittle (1997) also challenges cyberspace experts to examine the implications of their assumptions about such topics as community, intellectual property and civic virtue.

There is an intimate connection between informal conversations, the kind that take place in communities and virtual communities and the ability of large social groups to govern themselves without large formal governmental structures or hierarchies (Rheingold 1993). This socio-political connection shares a metaphor with the idea of cyberspace, for it takes place in a kind of virtual space that has come to be known by some specialists as the public sphere. Brown and Duguid (1995, 2000, 2001) argue that information itself has a social life. In most conversations, for example, people take turns in exchanging information and do not necessarily share it. The new technologies, however, enable conversations with new kinds of properties. We need new concepts to understand their nature they claim. Grunwald (1997) highlights four key functions within face-to-face networks. These are communication, accessing information, achieving visibility and collaboration which can be replicated in collaborative technologies.

Human networks are hugely complex phenomena and impact upon many aspects of social, economic and political life (Adamic et al. 2003). Such networks have been studied by social anthropologists, for more than a hundred years, with studies, in the 1960s, focusing upon networks in urban societies (Barnes 1969; Clyde Mitchell 1969). We are, however, only just beginning to understand their implications:

> Today we increasingly recognize that nothing
> happens in isolation. Most events and phenomena
> are connected, caused by, and interacting with a
> huge number of other pieces of a complex universal puzzle...
> We have come to grasp the importance of networks.
> (Barabasi (2003): 7)

In this 'small world' (Milgram 1967; Watts & Strogatz 1998), individuals and groups are as likely to reach out around the globe for knowledge as they are to visit their next door neighbour in search of information (Watts 2003; Buchanan: 2002). Social network analysis, derived from sociograms (Moreno 1934) and sociology (Wasserman & Faust 1994; Wellman 1982), but now applied to interaction in electronic as well as social networks (Wellman 1997; 1999; Cross, Parker & Borgatti 2002; Cross & Parker 2004), attempts to analyse characteristics of networks, such as, the strength of weak ties (Granovetter 1973; 1976; Kavanaugh et al. 2003), the degree of separation (Watts 2003), embeddedness (Uzzi 1996; 1997), alliances and constellations (Gulati 1995; 1998; 1999) ripple effect (Newman 2003) and structural holes (Burt 1992).

Social networks, in the context of this research, refers to a wide range of networks, face-to-face and online, formal and informal and should be differentiated from virtual social networks, such as, Facebook.

While face-to-face contact is paramount and often cannot be replicated in electronic systems (Nardi & Whittaker 2002), the constraint of time and space on active individuals has led to networks accepting that the 'community' is not necessarily located in a fixed space (Jordan, Hauser & Foster 2003). The idea of community being with you wherever you are is a welcome and re-assuring idea associated with the trust, strengths and connections needed for effective networking (Adamic, Buyukkokten & Adar 2003). As a result, communities tend to use a combination of collaborative technologies, rather than an individual technology-mediated communication, to add value to human systems in a personalised manner (Wellman 2002a; 2002b) often referred to as social networking. This leads to partnerships being created which build not only upon the solo achievement of the individual but also on the collaborative achievement of groups working in different locations, at different times, around the globe not unlike those in multi-media industries (Starkey, Barnatt and Tempest 2000).

Research into social networking (Wellman 2001a; 2001b) has shown that knowledge-sharing and the idea of communities (defined as groups of people that create, share and exchange knowledge) is relative to situated learning (how useful the knowledge is within a particular situation or towards a particular end). This requires multi-faceted means of creating 'dialogue' where meaning flows through individuals and groups. Initially, however, the quality of the dialogue may not be as important as the process of democratic engagement it as it is often about allowing people to explore new ideas and discarding those that are not 'fit for purpose' (Foucault 1972; 1992). Evidence also suggests that network identity can also emerge through consensual agreement on what is community-based knowledge in the emerging dialogue (Lesser, Fontaine & Slusher 2002).

Social networks appear to vary not only with regard to the skills and experience of individuals but also in relation to where the individual is located within community space (Adamic, Buyukkokten & Adar 2003). It would be relatively easy to map personalized networks if community spaces were mutually exclusive and static (Lipnack

& Stamps 1997). However, such spaces are mutually reliant and dynamic; capable of potentially highly complex topologies of personalised networks (Krebs 1998).

Kelly (1994: p.161) suggests that individuals need to 'embrace the swarm' of networks. His model of a swarming network is difficult to differentiate from a diagram of electronic impulses in the brain (Figure 2.5). This swarming view of networks envisions networks as something akin to electrical impulses within the brain which are constantly switching according to function. New nodes and connections are constantly being formed, broken and reformed with the hub of the network in a constant state of flux.

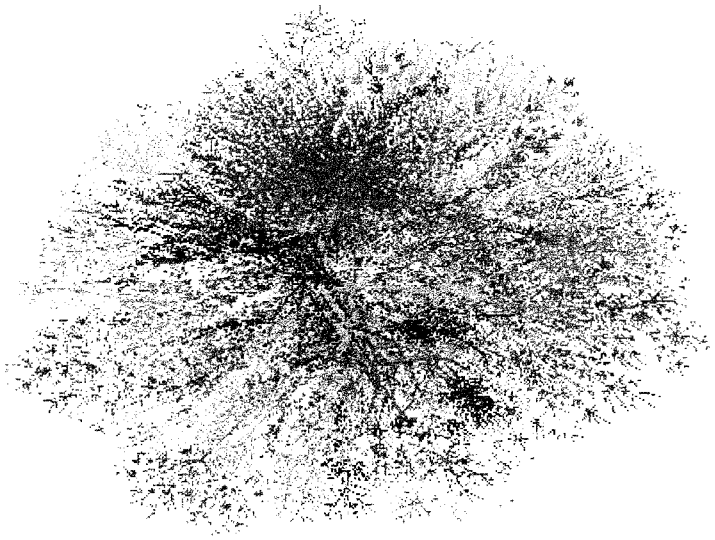


Figure 2.5: Kelly's vision of a swarming network
(Derived from Kelly 1994)

Networks are constantly emerging, forming and reforming. As a result, there are implications for how individuals and organisations utilise collaborative technologies to create social networks.

2.6. Collaborative technologies

Collaborative technologies play an essential role in the daily life of individuals and organisations. We need, however, to estimate the strengths and weaknesses of these technologies, estimate where, when and how they add value to other forms of communication, develop better practice in their use and engage in driving change in the use of these technologies.

Collaborative technologies facilitate collaboration between individuals, groups and organisations (Ciborra 1996). This technology may be used to communicate, cooperate, coordinate, solve problems, compete, or negotiate (Boyd 2003a; 2003b). Such technologies include telephones, text messaging, email, videophones and chat rooms with the telephone as the pioneer (Fischer 1992). The use of these technologies involves a sense of community-building but it is questionable if what is created can necessarily be considered a 'learning community' (Davis 1997; Burbules 2000). Collaborative technologies should also be differentiated from web publishing tools, such as, weblogs (Coates 2003).

These technologies are typically categorised along two primary continua (Duffy 1996; Williams 1996):

1. Whether users are working together at the same time ("synchronous") or different times ("asynchronous").
2. Whether users are working together in the same place ("colocated") or in different places ("non-colocated").

Computer-supported cooperative work refers to the field of study which examines the design, adoption, and use of collaborative technologies (Easterbrook 1992). Despite the name, this field of study is not restricted to issues of cooperation or work but also examines competition, socialisation, and play (Gurstein 2000). The field of study typically attracts those interested in the relationship between software design and organisational behaviour, including computer scientists, organisational psychologists, communications researchers and anthropologists among other specialisms (Hawkins and Blakeslee 2004). The design of this technology involves understanding groups and how people behave in groups (Whittle 1997). It also involves having a good understanding of networking technology and how aspects of that technology affect a user's experience (Sallet 2003). All the issues related to traditional user interface design remain relevant, since the technology involves people (Yen 1996).

Communication between people is highly-structured (Shirky 2002; Reed 2003), when someone asks a question, they usually expect either an answer or a request for clarification (Nardi & Whittaker 2002). After a request, a typical response is to fulfil the request or specify a reason for not fulfilling the request. When someone fills out an

official form, that form usually has a pre-determined route that it takes through an organisation, possibly to a manager for a signature, then an administrator for processing and filing, then perhaps a duplicate is sent back to the original employee. The point is that most actions have a known range of responses and people to handle them, communication has both structure (Karash 1995) and its own self-determining social life (Brown & Duguid 1995: 2000).

When the type of structure is known, systems can take advantage of the structure to speed up communications and minimise errors (Haykin 2000). When the system determines exactly how the conversation is structured, this is known as technology-mediated communication structure. The alternative is socially-mediated communication (Jaaskelainen & Savolainen 2003). When someone wants to make a request, they send, for instance, a plain email message to another person, and that person decides whether to respond, how to respond, and who to respond to. This type of structure can be more time-consuming and prone to error, and thus it may be unacceptable for certain types of organisations, especially ones that allow no exceptions to protocol, such as, governmental organisations. On the other hand, exceptions to the expected structure of communication are extremely common (Hoffman 2003). For this reason, technology-mediated communication may actually be an obstruction to getting work done efficiently and may lead people to not use a system or use it incorrectly, especially when the designer has not completely anticipated the range of communication possibilities (Ciborra 1996; Nardi & Whittaker 2002).

It appears evident that adding collaborative technologies to a community characterised by strong social cohesion will enhance the social infrastructure of the community and add to the public good. It is equally clear that where the community is unhealthy, where there is little social cohesion, it is unlikely that the addition of collaborative technologies will bring about a change in the community and thus, few public benefits can be expected to be realised (Cordell & Romanov 2005). Schauder et al. (2005) refer to community use of communication tools as relevant to the purpose for which they are used:

- to enhance living;
- to maximise opportunity;
- and, to minimise risk.

Ripamonti et al. (2005) outline a number of effective strategies for achieving sustainability of a community:

- An effective institutional architecture (e.g. participatory partnerships).
- Containing costs through appropriate actions (e.g. development partnerships).
- Reinforcing performances by choosing coherent activities, which match aims and objectives (e.g. consultancy partnerships).

Day (2005) states that the social sustainability of any community technology activity is dependent on whether or not it forms an integral part of and contributes to the shared experiences that constitute community life.

In her book, Corporate Memory, Ann Brooking (1999), following on from definitions of explicit and tacit knowledge, identifies three types of knowledge:-

1. Systematic knowledge: knowledge of how things get done. It may start off as tacit and become explicit.
2. Pragmatic knowledge: factual knowledge, used to make decisions, which is largely explicit.
3. Automatic knowledge: routine, or working knowledge which is largely tacit.

If Brooking is correct, then, clearly the exchange of knowledge can take place either on a tacit or an explicit level in both face-to-face and through the use of collaborative technologies. Many studies, however, do not consider collaborative technologies to be an appropriate platform for the transfer of tacit knowledge. 'Automatic knowledge' is transferred face-to-face and there tends to be a deliberate avoidance of creating documentation in most cases. 'Systematic knowledge', it would appear, is shared face-to-face initially and often supported by documentation which then can be shared via the use of collaborative technologies. A particular example of this would be terms and conditions of employment for a new employee. A new employee would be told face-to-face of terms and conditions and then would receive a document outlining these. This document could then be shared via collaborative technologies with other organisations wishing to establish a similar project. 'Pragmatic knowledge' tended to be generated as

a document and the contents shared both face-to-face and via collaborative technologies.

The theory of structuration, proposed by Anthony Giddens (1984) in The Constitution of Society, is an attempt to reconcile theoretical dichotomies of social systems such as agency/structure, subjective/objective, and micro/macro perspectives. The approach does not focus on the individual actor or societal totality 'but social practices ordered across space and time' (p. 2). Its proponents adopt this balanced position, attempting to treat influences of structure and agency equally. Structuration theory aims to avoid extremes of determinism. The balancing of agency and structure is referred to as the duality of structure: social structures make social action possible, and, at the same time, social action creates those very structures.

Orlikowski (1992) borrows Giddens' structuration theory and applies her critique of the duality of structure to technology: 'The duality of technology identifies prior views of technology - as either objective force or as socially constructed product - as a false dichotomy''' (p. 406). She compares this to previous models (the technological imperative, strategic choice, and technology as a trigger) and considers the importance of meaning, power, norms, and interpretive flexibility within the theory of structuration. Orlikowski (2000) revisits the theory of structuration so as to replace the notion of embedded properties for enactment use. This permits us to examine how people, as they interact with a technology in their ongoing practices, enact structures which shape their emergent and situated use of that technology. While Orlikowski's work focused on multinational, corporate activity, it is equally applicable to the technology cultures which have emerged in the Third Sector and can be further adapted to include differences in approaches to the governance of technology (Stillman, 2006).

2.7. Reviewing the relationship between the Third Sector, knowledge sharing and communities of practice

The Third Sector is widely acknowledged, particularly by central government (Cabinet Office 2006) and Local Authorities (Newcastle City Council 2001), as a source of knowledge on issues affecting communities which is largely unobtainable in other sectors. Although the public sector does, in some cases, see itself as a more effective

intelligence gatherer than the Third Sector it tends to defer to the grass roots knowledge of the Sector (Neighbourhood Renewal Unit 2002).

The Third Sector appears to demonstrate relatively high levels of reciprocity and trust in comparison to other sectors which are key drivers in the knowledge sharing process (Collison & Parcell 2001; Wenger et al. 2002; Saint Onge & Wallace 2003) and the building of essential social capital (Putnam 2000; Putnam & Feldstein 2004). Reciprocity and trust are also significant drivers within communities of practice (Orr 1996; Huysman 2000; 2004). The Third Sector would find it difficult to exist without constantly emergent and fully-functioning communities of practice as it is driven by the need to share best practice on a range of issues. Other sectors are aware of this and are often willing to form communities where they believe best practice can be developed and shared. The Third Sector also has the strength of providing a unique milieu of voluntary, professional and semi-professional perspectives on issues.

As a result, the Sector contains a high proportion of knowledge workers, be they professional, semi-professional or volunteers:

> Knowledge workers have high degrees of expertise, education or experience, and the primary purpose of their jobs involves the creation, distribution, or application of knowledge.
> (Davenport 2004: 10)

These workers need to be engaged in structures which allow for the rapid accumulation of knowledge from a wide range of sources. So, informal communities of practice have been a feature of the Third Sector from its origins as it has been forced to survive on a relatively low level of resources in a climate of constant structural change (Drucker 1969). As a result, the sector has utilised original and innovative ways of sharing knowledge within and across communities (Neighbourhood Renewal Unit 2001c; 2002). How this informal knowledge sharing operates and how it adds value to the strategic operation of the sector is largely unexplored.

2.8. Summary of main points

The Third Sector is an important actor on the UK government stage with a long history of voluntarism that has lead to a dichotomy between its roles as a lobbyist for the

provision of services while, at the same time, providing key services to other sectors. Due to the specific context of the development of the North East of England as a cultural, political, social and economic entity the Sector in the region has adapted to a particular role within the regional structure. This role has recently been compounded by the rise of meta-governance at national, regional and local levels.

The Sector has also acted as a test-bed for a wide range of ICT policy initiatives with some being more successful than others. However, all sectors recognise the need for the Third Sector to improve its use of ICTs as a knowledge sharing tool.

Knowledge, as defined in this study, refers to data and information where individuals and organisations have added value to their utility. It is, therefore, important to differentiate between explicit and tacit knowledge and to recognise that there are community spaces where knowledge is shared more effectively. Effective use of knowledge sharing space is often referred to as 'Ba'.

Both formal and informal communities of practice have populated the Sector. It is necessary to acknowledge that such communities of practice have a range of features which make them significantly different from each other. These communities of practice operate within organisational and social networks which add further complexity to their function, form and practice. It is clear, however, that the Sector has the capacity to make more effective use of collaborative technologies to ensure that knowledge is shared appropriately within and between organisations.

3. Methodology

3.1. Introduction

The original research proposal was designed to be both flexible and robust. A degree of flexibility was needed due to the dynamic nature of the phenomena under investigation and robustness was needed to test the underlying premise of the existence of knowledge sharing in Third Sector organisations to increase credibility and reliability of findings. This flexibility and robustness has proved durable having allowed for the changes in the initial case studies suggested for investigation while retaining the rigour for detailed analysis.

Investigations of data have been conducted individually and collectively on both micro and macro levels of organisation. The combination of micro and macro data analysis leads to a complex view of the dynamics of knowledge sharing. This complex view is needed to interpret the real-time phenomena under investigation.

Finally, case study evidence is use to build a rich picture of these phenomena which is then utilised to build a theory of knowledge sharing in the Third Sector.

3.2. The ontological perspective

Ontology, the study of social reality, is a key problem in the philosophy of social science. The key questions that need to be addressed when studying ontology are:

1. Is social reality created in the way social agents conceive of it?
2. Is there a difference between the kind of existence attributed to social and to physical facts?
3. Do physical facts enjoy a more independent existence than social facts?
4. Is social reality a matter of social convention?

In order to accommodate these questions, the research is conducted from within the perspective of interdisciplinary phenomenology (Ihde & Zaner 1977) as this corresponds with the researcher's view of reality which informs the research question and the aims and objectives (Collin 1997). The predominant feature of this perspective is the concept that the social world has a special ontological status: that which appears as a social reality does not exist in a specific sense but is the product of the subjective

and inter-subjective experience and consciousness of individuals. Phenomena are studied through the subject's inter-subjective experience. Such a view suggests that the subject and the researcher's view of reality can often be convergent, while, at other times divergent. This leads to a rich pattern of views of the world which assists the definition of the methodology.

The researcher has more than twenty-five years experience of working with the Third Sector in the North East of England. A major area of interest, during this period, has been information and knowledge management systems within community-based advice, information and support projects. This experience within the area of interest has led to the adoption of a specific subjective and inter-subjective view of reality. This philosophical nature of human identity, within a social context, has significant implications for how we make sense of the world and individual and collective processes of learning.

3.2.1. Grounded theory

The study makes use of the process referred to as 'grounded theory' in order to formulate theory from practice (Strauss & Corbin 1997; Glaser & Strauss 1999). The term grounded theory refers to theory that is induced from a body of data. If undertaken effectively, the resulting theory should fit one dataset exactly. This contrasts with theory deducted from received theory, without the help of data, and could therefore turn out to fit no data at all.

Grounded theory takes a case rather than a variable perspective, although the distinction is often impossible to draw. This means in part that the researcher takes different cases to be wholes, in which the variables interact as a unit to produce certain outcomes. A case-oriented perspective tends to assume that variables interact in complex ways. Part and parcel of the case-orientation is a comparative orientation. Cases similar on many variables but with different outcomes are compared to see where the key causal differences may lie. Similarly, cases that have the same outcome are examined to see which conditions they all have in common, thereby revealing necessary causes.

The grounded theory approach, particularly the way Strauss and Corbin (1997) develop it, consists of a set of steps whose careful execution is thought to facilitate a workable theory as the outcome. Glaser & Strauss (1999) would say that the quality of a theory

can be evaluated by the process by which the theory is constructed. This process contrasts with the scientific perspective of how a theory is generated.

Although not part of the grounded theory rhetoric, it is apparent that grounded theorists are concerned with or largely influenced by culture-specific understandings of the world. As a result, they use categories drawn from respondents themselves and tend to focus on making implicit belief systems explicit.

3.3. Overview of research design

The research design acknowledges the extensive body of theory on communities of practice, social networks and collaborative technologies which is referenced in the literature review. This body of theory has led to the adoption of a qualitative methodology (Cresswell 1994; Miles & Huberman 1984; Patton 2002) within a combination of holistic and embedded multiple case study design (Yin 2003a; 2003b). The qualitative tools used are non-participant observation, questionnaires, interviews, document, archives and artefact analysis. Case studies, in particular, are the preferred strategy for the research as the researcher has no control over the events under scrutiny. Furthermore, multiple case study design allows for comparison not only between individual case studies but also the researcher and the subject's views of the world. Although case study research is not an experiment, the methodology is capable of being applied with the rigour of experimental design to develop working models.

Understanding the dynamic nature of the creation of clusters of both explicit and tacit knowledge is also critical to the study. The relationship between the use of face-to-face dialogue and collaborative technologies also forms a dynamic element within the research that can be addressed by an appropriate case study design. The overall design of the research methodology is illustrated in Figure 3.1 below.

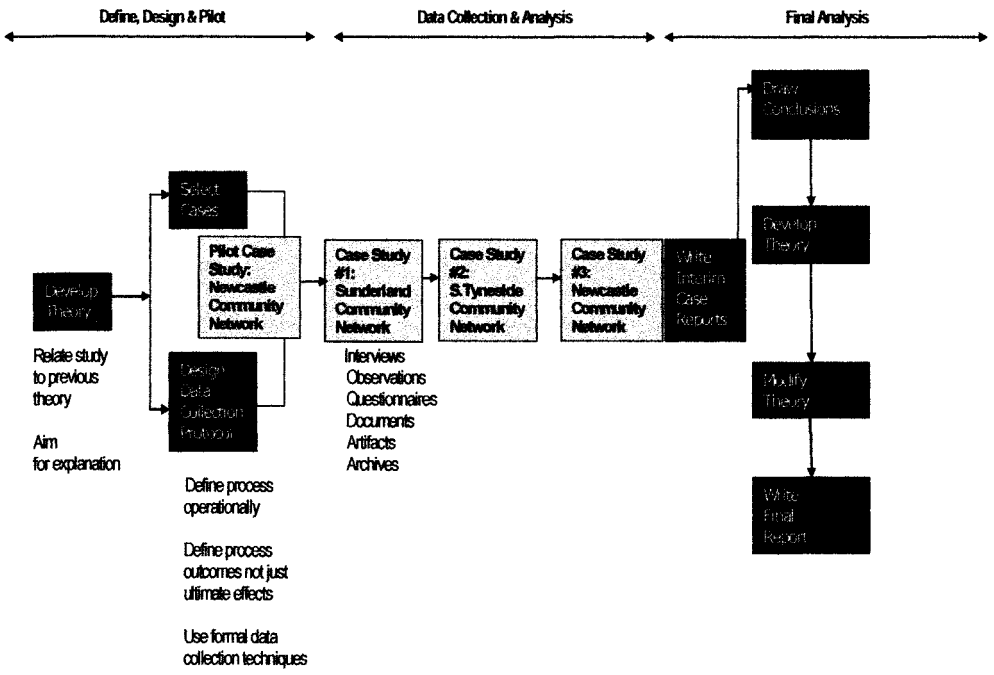


Figure 3.1: Overview of research design

Figure 3.1 shows the research divided into three phases:

1. define, design and pilot;
2. data collection and analysis;
3. and, final analysis.

The first phase involves the search for initial explanation of phenomena by developing theories which are related to previous and existing theory through a review of literature. This phase also involves the formulation and piloting of a data collection protocol for collecting data from a pilot case study identified by the theory development phase. Yin (2003a) suggests that the the pilot project forms the final case study in a multiple case study design as this allows further testing of the robustness of the data collection protocol.

The second phase involves working closely with multiple case studies, examining documents, artifacts and archives, interviewing informants and observing meetings. During this phase, interim, individual case study reports were compiled for key

stakeholders which inform the final analysis.

The final analysis, the third phase, involves deploying a range of analytical techniques, such as, pattern matching, replication and transferability, to test the validity of the data collected in the context of the first phase of the research. This activity then leads to initial conclusions which can be used to modify theory, develop policy implications and provide a working which inform the conclusion of the thesis.

3.4. Case study research

The history of case study research is marked by protracted periods of intense academic use and disuse. The earliest use of this form of research can be traced to Europe, predominantly to France. More recently, the methodology was closely associated with The University of Chicago's Department of Sociology. From the early 1900's until 1935, The Chicago School, as it was known, was dominant in the field and the source of a great deal of significant literature. There was a wealth of case study material in Chicago, since it was a period of immigration to the United States and various aspects of immigration of different national groups to the city were studied and reported (Hamel et al., 1993). Issues of poverty, unemployment, and social conditions deriving from immigration were ideally suited to the case study methodology. In the 1960s, following an intense period of quantitative research, researchers were becoming concerned about the limitations of such methodology, hence, there was a renewed interest in case studies. It was during this period that Strauss and Glaser (1967) developed the concept of grounded theory. This along with some well regarded studies accelerated the renewed use of the case study methodology.

Case study research is not sampling research (Gomm et al. 2000) and this is a fact asserted by all the major researchers in the field, including Yin (2003a), Stake (1995), and Feagin et al. (1991). However, selecting cases must be done so as to maximise what can be learned in the period of time available for the study. Case studies can be single or multiple-case design, where a multiple design must follow a replication rather than sampling logic. When no other cases are available for replication, the researcher is limited to single-case designs. Yin (2003a) pointed out that generalisation of results, from either single or multiple designs, is made to theory and not to populations. Multiple cases strengthen the results by pattern-matching, thus increasing confidence in the robustness of the theory.

Case study is also an appropriate methodology when a holistic, in-depth investigation is needed (Feagin et al.1991). Yin states:

> The case study is but one of several ways of doing social science research. Other ways include experiments, surveys, histories and the analysis of archival information. Each strategy has peculiar advantages and disadvantages, depending on three conditions: (a) the type of research question, (b) the control an investigator has over actual behavioural events, and (c) the focus on contemporary as opposed to historical phenomena.
> (Yin 2003a: 1)

As a result of these three conditions a multiple case study design is appropriate as:

1. The research question is exploratory, explanatory and descriptive. Exploring relationships between different phenomena while, describing and explaining the nature of these relationships.
2. The investigator has no control over actual events which take place in an environment controlled by external factors.
3. The phenomena, under investigation, are contemporary rather then historical. They take place in real time.

Yin's (2003b) exploratory cases are sometimes considered as a prelude to social research. Explanatory case studies may be used for doing causal investigations. Descriptive cases require a descriptive theory to be developed before starting the project. Pyecha (1988) used this methodology in a special education study, using a pattern-matching procedure. Stake (1995) included three others:

1. Intrinsic: when the researcher has an interest in the case.
2. Instrumental: when the case is used to understand more than what is obvious to the observer.
3. Collective: when a group of cases is being studied. In all of the above types of case studies, there can be single-case or multiple-case applications.

This particular research is a hybrid of three of the above types, intrinsic, collective and explanatory. It is intrinsic because the researcher has personal experience and interest in

the case studies, collective because a group of cases is being studied and explanatory as it seeks explanation of causal relationships.

Yin, Stake, and others who have wide experience in this methodology have developed robust procedures. When these procedures are followed, the researcher will be following methods as well-developed and tested as any in the scientific field. Whether the study is experimental or quasi-experimental, the data collection and analysis methods are known to hide some details (Stake, 1995). Case studies, on the other hand, are designed to bring out the details from the viewpoint of the participants by using multiple sources of data. The multiple sources of data deployed in this research reflect this essential design paradigm.

Yin (2003a) cautioned that case study designs are not variants of other research designs. He proposed five components of case studies:

1. A study's questions.
2. Its propositions, if any.
3. Its unit(s) of analysis.
4. The logic linking the data to the propositions.
5. The criteria for interpreting the findings.

The rationale for using multiple sources of data is the triangulation of evidence. Triangulation increases the reliability of the data and the process of gathering it. In the context of data collection, triangulation serves to corroborate the data gathered from other sources. The cost of using multiple sources and the investigator's ability to carry out the task, should be taken into account prior to deciding on the use of this technique. Case study is, by its very nature, a triangulated research strategy. Snow and Anderson (cited in Feagin et al. 1991) asserted that triangulation can occur with data, investigators, theories, and even methodologies. Stake (1995) stated that the protocols that are used to ensure accuracy and alternative explanations are called triangulation. The need for triangulation arises from the ethical need to confirm the validity of the processes. Denzin (1984) identified four types of triangulation:

1. Data source triangulation: the researcher looks for the data to remain the same in different contexts or how different contexts change data.

2. Investigator triangulation: several investigators examine the same phenomenon.
3. Theory triangulation: investigators with different view points interpret the same results.
4. Methodological triangulation: one approach is followed by another, to increase confidence in the interpretation.

This research relies upon both data source and methodological triangulation as it does not meet the criteria for investigator or theory triangulation.

As in all research, consideration must be given to construct validity, internal validity, external validity, and reliability (Yin, 2003a). Yin (2003a) suggested using multiple sources of evidence as the way to ensure construct validity. The current study used multiple sources of evidence, such as, observations, surveys, interviews, and documents. The specification of the unit of analysis also provides the internal validity as the theories are developed and data collection and analysis test those theories. External validity is also built into the research design. Yin (2003a) provided the assertion that external validity could be achieved from theoretical relationships, and from these theoretical relationships, generalisations could be made through the processes of pattern matching, replication and transferability. Table 3.1 illustrates the various tests applied in the research design.

TEST	DESCRIPTION	TACTIC	PHASE
Construct Validity	*Establishing: correct operational measures for the concepts being studied*	*Multiple sources of evidence* *Chain of evidence* *Key informants review draft case study report*	*Data collection* *Data collection* *Composition*
Internal Validity	*Establishing: a causal relationship whereby certain conditions are shown to lead to other conditions*	*Pattern matching* *Explanation building*	*Data analysis* *Data analysis*
External Validity	*Establishing: the domain to which a study's findings can be generalised*	*Replication* *Transferability*	*Research design*
Reliability	*Demonstrating: that the operations of a study can be repeated with the same results*	*Case study protocol* *Case study database*	*Data collection* *Data collection*

Table 3.1: Validity testing

3.5. Units of analysis

The unit of analysis is a critical factor in the case study. It is typically a system of action rather than an individual or group of individuals. Case studies tend to be selective, focusing on one or two issues that are fundamental to understanding the system being examined. As case studies are multi-perspective, the researcher considers not just the voice and perspective of the actors, but also of the relevant groups of actors and the interaction between them. Within this research, the unit of analysis is variable. For purposes of replication, the unit of analysis within holistic study is the combined use of communities of practice, social networks and collaborative technologies. Further study is also undertaken of the individual embedded use, within the case studies, of communities of practice, social networks and collaborative technologies (see Figure 3.2 below).

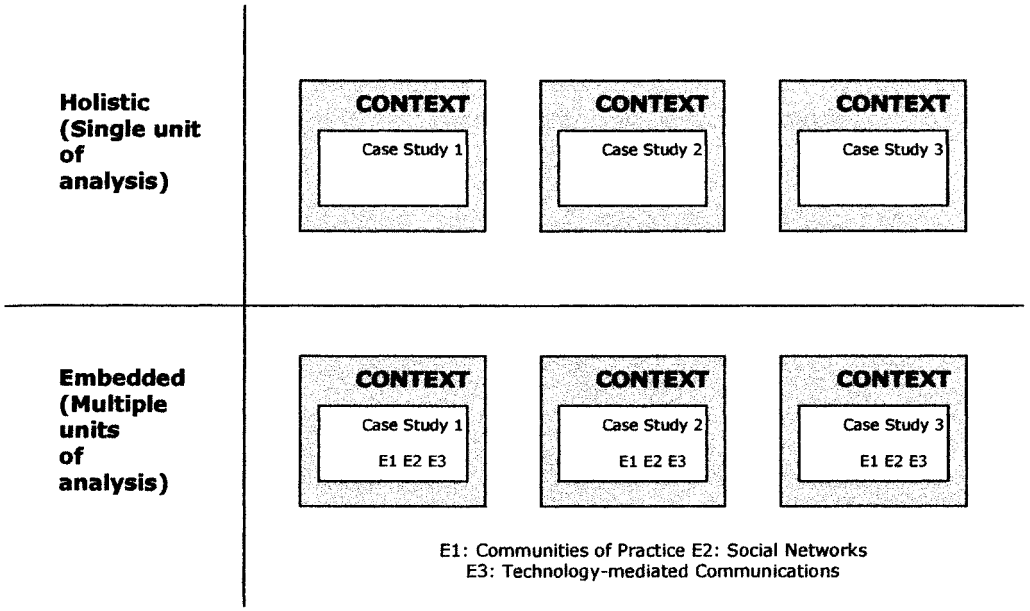


Figure 3.2: Holistic and embedded units of analysis

3.6. Testing for the presence of phenomena

To test for the presence, function and form of communities of practice, social networks and collaborative technologies within the case studies, the probing questions listed below were asked in each case. These questions are derived from relevant points explored in the literature review and are designed to test for the presence of phenomena, such as, network hubs, community cores and the interaction of networks, communties and technologies.

1. Communities of practice:
    i. Is there a shared vision of a community network?
    ii. Is there an appropriate mechanism, within the group, for sharing accumulated knowledge?
    iii. Is there a sense of community within the group itself?
    iv. Does the group enable learning?
    v. Has the group created common practices?
    vi. Is there a culture of information and knowledge sharing?

2. Social networks:
    i. Which individuals or groups do you find it easiest to share information and knowledge?
    ii. Who do you approach most when seeking information and knowledge?
    iii. Who do you think hinders information and knowledge sharing?
    iv. When you are not sure where to find appropriate information and knowledge who do you contact to assist you?
    v. Are there people in your network who deliberately withhold information and knowledge?
    vi. When withholding information and knowledge why do you think this is done?

3. Collaborative technologies:
    i. What forms of technology-mediated communications do you use?
    ii. How often do you use each form?
    iii. Which forms do you use in combination?
    iv. Does the form of communication vary according to where the contact is located within your social network?
    v. Why would you choose one form over another?
    vi. Do you prefer face-to-face communication to technology-mediated communications?

3.7. Data sources and research instruments

Scoping of the fieldwork consisted of initial, informal meetings with key players in each of the case studies. This scoping exercise served as an introduction to the research area

for informants, agreement on a data collection protocol (Appendix 1) and agreement on a positive outcome for the case study, for example, a research paper or presentation on the findings. Scoping the individual case studies to assess the function, form and content of the data collection protocol proved different within each case study as all have differing ways of addressing similar information and knowledge sharing issues. It proved problematic to produce a generic data collection protocol. While protocol design proved complex and time-consuming it has led to the researcher gaining a valauable initial insight into processes of knowledge sharing within each case study.

Yin (2003a) identified six primary sources of evidence for case study research. These data sources form an essential component of the data collection protocol. Table 3.3 shows the sources of evidence in terms of each case study and in total of the research.

Source	Case Study 1	Case Study 2	Case Study 3	Total
Documents	*16*	*26*	*14*	*56*
Archives	*16*	*6*	*30*	*52*
Questionnaires	*15*	*18*	*12*	*45*
Interviews	*12*	*15*	*10*	*37*
Observations	*25*	*18*	*18*	*61*
Artefacts	*3*	*3*	*3*	*9*

Table 3.2: Types of evidence - data collected by case study

Fieldwork for this research was conducted between January 2002 and July 2004. Over this 76 week period, evidence was collected from a total of 260 data sources. These sources consisted of 56 documents, 52 archives, 45 questionnaires, 37 interviews, 61 observations and 9 artifacts. The initial data collection protocol was designed between September and November 2001 and piloted in December of that year. The revised protocol was developed in January 2002. The pilot project fieldwork was conducted between January and July 2002.

The use of each of these data sources requires different skills from the researcher. Not all sources are essential in every case study, but the importance of multiple sources of data to the reliability of the study is well established (Stake, 1995; Yin, 2003a). No single source has a complete advantage over the other, rather, they might be

complementary and could be used in tandem. Thus a case study should use as many sources as are relevant to the study.

ngths, weaknesses and alignment with the research objectives of each type of data source.

Source	Strengths	Weaknesses
Documents	*Stable: repeated review* *Unobtrusive: exist prior to case study* *Exact: names etc.* *Broad coverage: extended time span*	*Retrievability: difficult* *Biased selectivity* *Reporting bias: reflects author bias* *Access: may be blocked*
Archives	*Same as above* *Precise and quantitative*	*As above, plus:* *Privacy might inhibit access*
Observations	*Reality: covers events in real time* *Contextual: covers event context*	*Time-consuming* *Selectivity: might miss facts* *Reflexivity: observer's presence might cause change*
Questionnaires	*Targeted: focuses on case study analysis* *Insightful: provides perceived relationships*	*Bias due to poor questions* *Response bias* *Incomplete recollection*
Interviews	*Targeted: focuses on case study topic* *Insightful: provides perceived causal inferences*	*As above, plus:* *Reflexivity: interviewee expresses what interviewer wants to hear*
Artefacts	*Insightful into cultural features* *Insightful into technical operations*	*Selectivity* *Availability*

Table 3.3: Types of evidence - strengths and weaknesses

The following sections examine the several data sources and research instruments.

3.7.1. Documents

In this research, the term 'documents' is used to refer to reports and various working documents, such as, briefing notes, letters and memoranda. The validity of these documents has been carefully reviewed so as to avoid inappropriate data being included in the research. One of the most important uses of documents is to corroborate evidence gathered from other sources. However, the potential for over-reliance on documents as evidence in case studies has been criticised as there could be a danger of this occurrence if the researcher is inexperienced and mistakes some types of documents as unmitigated truth (Yin, 2003a).

Reports were available from a wide range of sources and frequently acted as boundary objects between different areas of practice within networks. Central government reports were usually available in .pdf format and this format is widely used, between networks. The various local authorities and Local Strategic Partnerships tended to circulate hard copies of reports by mail. Internal reports tended to be precised from central government or local authority documents and on some occasions a combination of both.

Working documents were produced to inform practitioners on key issues, best practice and explaining new terminology associated with the varied regeneration and Third Sector issues impacting on shared practices. Internal documents were analysed for the occurence of keywords. The majority of these documents focused upon consultation with established communities, applications for grant-aid from community-based organisations and the relationship with the Local Strategic Partnership.

3.7.2. Archives

Archives, in terms of this research, included minutes of meetings and stored emails. The researcher has been meticulous in determining the origin of the records and their accuracy.

Minutes were presented in a standard template which displayed the initials of those responsible for action on a particular issue. This format proved useful to the research as a means of identifying individuals within particular issue-oriented communities of practice.

Emails were subject to detailed analysis. The main use of email was to share documents as attachments. As a result, the length of emails was realtively short ranging from two to three hundred words; the average being one hundred and fifty words in length. There was considerable evidence of 'lurking' on lists with only a small percentage of list members actually participating in discussions.

3.7.3. Observations

Non-partcipant observations took place at meetings and site visits. These observations were both formal and informal to assess the vaildity of actions observed. Detailed non-participant observations were made of many meetings within each case study. This non-participant observation proved useful as a means of identifying sources of knowledge

sharing within each case study. The quality of observations at meetings proved variable depending on a number of factors including the specifics of the agenda, the facilitation of the meeting and the levels of participation. Some meetings had very specific agendas, were well facilitated and high levels of participation. Others exhibited completely converse features. The researcher was, however, able to use these variations to make an effective assessment of participants' levels of comprehension of the complexity of knowledge sharing within each case study.

Three meetings of the Regional Community Empowerment Fund Group were observed and mapping was undertaken of the level and nature of contributions from those attending. Although meetings were held on a regular basis, attendance was varied and very few of the group attended the meetings regularly.

A standard template (Appendix 2) was used to record those attending, keywords used and activities suggested and undertaken.

3.7.4. Questionnaires

The questioning phase of the research involved the completion of a structured questionnaire for practitioners (Appendix 3). This questionnaire was divided into four parts. The first part asked a number of questions on the community network, the second part was designed to assess the level of usage of collaborative technologies, the third part sought as an explanation of reasons for involvement in the network and the final part was a statement of personal details.

Initial response to the questionnaire was poor and resulted in several reminders to the informants of the need to complete the questionnaire prior to any follow-up interview. A number of methods of circulating questionnaires were then deployed, such as, mailing and distribution at meetings. By far the greatest response, however, was via an individual approach to key respondents. The benefit to the researcher of such an approach, within the methodology, has been the creation of an informal knowledge-sharing relationship with key respondents.

3.7.5. Interviews

Interviews are one of the most important sources of information in this research. Interviews took several forms: open-ended, focused, and structured. In open-ended

interviews, the researcher asked for the informant's opinion on events or facts. This could serve to corroborate previously gathered data. In focused interviews, the informants were interviewed for only a short time and the questions asked could have come from the case study protocol. Structured interviews (Appendix 4) proved particularly useful in studies of key players.

Face-to-face interviews with the eight members of the group who had completed the questionnaire were held. The content of these interviews focused upon follow up to free text responses to the structured questionnaire. These interviews varied in length from 45 to 90 minutes. Length of interview appeared relative to the level of the informants involvement in the group.

Three other face-to-face interviews were also undertaken with:

1. A Lead Officer in Government Office North East responsible for Local Strategic Partnerships.
2. Newcastle City Council's Head of Social Policy.
3. The Head of Knowledge at the Regional Development Agency, One North East.

The purpose of these interviews was to establish the relationship between the Community Empowerment Fund and other initiatives and agencies in the emerging regional government framework. In particular, how the knowledge management strategies of these agencies related to other agencies and that referred to as part of the Community Empowerment Fund Guidance.

3.7.6. Artifacts

Artifacts collected for research purposes included drawings, diagrams, models and logos. These artifacts proved useful in promoting investigative dialogue during interviews; asking for individual recollection of flipchart drawings, flowcharts and models created at activities and events. Logos were also use as an aide-memoire to various stages of development of the network and the associations these logs suggested with particular issues.

3.7.7. Member checking

The final phase of data collection was a focus group, used as a form of member-checking, involving feeding back both major and minor findings to key respondents. This gave the respondents the opportunity to reflect on practice, while, at the same time, serving to validate key findings for the researcher. Focus groups ranged in quality according to the experience of participants in this method of working. The researcher found this phase useful, however, in assessing the agencies' commitment to partnership working, their conceptions of the validity of the research and their understanding of the research process. The researcher found the facilitation process both frustrating and rewarding. On reflection, however, frustrations arising during the conduct of the focus groups were outweighed by the positive nature of the results.

A final focus group, lasting three hours, was held with four of the initial eight informants from the key stakeholder group. This group considered the following six questions:

1. Is there a shared vision of a community network?
2. Do you feel that the group is an appropriate mechanism for sharing its accumulated knowledge?
3. Do you feel that there is a sense of community within the group itself?
4. Does the group enable learning?
5. Has the group created common practices?
6. Has the group created a culture of information sharing?

These questions were designed to reflect the six critical success factors of a community of practice (Wenger et al. 2002).

Finally, this session not only acted as a means of initially arraying the data but also as a means of verifying the validity of it.

3.7.8. Organising data

The data collected during this phase was organised and documented as in experimental studies. The design of the data collection protocol was such that other researchers would be able to use the material based on the descriptions contained within it. All types of relevant documents were added to the database, as well as tabular materials, narratives,

and other notes. In recommending that a chain of evidence be maintained, Yin (2003a) provided an avenue for the researcher to increase the reliability of the study.

3.8. Developing a data collection protocol

It is the development of a formal method for collecting data that provides the reliability that is required of all research. The first stage in the case study methodology recommended by Yin (2003a) is the development of a case study protocol. He suggests that the researcher must possess or acquire the following skills in order to undertake this task:

- the ability to ask good questions and to interpret the responses;
- to be a good listener;
- to be adaptive and flexible so as to react to various situations;
- have a firm grasp of issues being studied;
- and, be unbiased by preconceived notions.

The ultimate aim being that the researcher must be able to function as a 'senior' researcher (Feagin et al. 1991) with appropriate and effective use of well-defined research instruments.

Some of the early criticism of the case study as a research methodology was that it was unscientific in nature, and, as a result, replication was not possible. The literature contains major refutations of this criticism by Yin, Stake, Feagin, and others whose work resulted in a suggested outline for what a case study protocol could include. Yin (2003a) reminded the researcher that there is more to a protocol than the instrument. He asserted that the development of the rules and procedures contained in the protocol enhance the reliability of case study research. While it is desirable to have a protocol for all studies, Yin (2003a) stated that it is essential in a multiple-case study. The protocol should include the following sections:

- Overview of the case study project: this will include project objectives, case study issues and presentations about the topic under study.
- Appropriate fieldwork procedures: reminders about procedures, credentials for access to data sources and the location of those sources.

- Appropriate case study questions: the questions that the investigator must keep in mind during the data collection phase.
- A guide for the case study report: the outline and format for the final report.

The discipline imposed on the researcher by the protocol is important to the overall progress and reliability of the study. It helps keep the investigator's focus on the main tasks and goals, while the process of development brings out problems that would only be faced during the actual investigation. The overview of the project is a useful way to communicate with the investigator, while the field procedures are indispensable during data collection. The case study questions are those under study, not those contained in the survey instrument. Each question should also have a list of probable sources.

As Yin suggests, the data collection protocol was piloted on one of the case studies, Newcastle Community Empowerment Fund. In order to further test the validity of the data collection protocol various other tools were also piloted at this stage.

Once the protocol has been developed and tested, it puts the project into the second phase – the actual execution of the plan. In this phase the primary activity is that of data collection. The protocol described above addresses the types of evidence that are available in the case organisation. In case studies, data collection should be treated as a design issue that will enhance the construct and internal validity of the study, as well as the external validity and reliability (Yin, 2003a). Most of the field methods described in the literature treat data collection in isolation from the other aspects of the research process (Yin, 2003a), but that would not be productive in case study research.

Following the piloting of the data collection protocol, the original case studies identified proved difficult to locate within the regional framework as, when they were examined in greater detail, they did not appear to demonstrate examinable capacity for work within the emerging regional government framework. As a result, three community networks, operating a similar agenda, within the regional government framework were identified and used as data sources:

1. Newcastle Community Network
2. Sunderland Community Network
3. South Tyneside Community Network

3.9. Analysis

Yin (2003a) presented four analytical applications for a case study model:

1. To explain complex causal links in real-life interventions.
2. To describe the real-life context in which the intervention has occurred.
3. To describe the intervention itself.
4. To explore those situations in which the intervention being evaluated has no clear set of outcomes.

The issue of generalisation has appeared in the literature with regularity. It is a frequent criticism of case study research that the results are not widely applicable in alternative real life contexts. Yin refuted that criticism by presenting a well constructed explanation of the difference between analytical generalisation and statistical generalisation. In analytical generalisation, previously developed theory is used as a template against which to compare the empirical results of the case study (Yin, 2003a). Stake (1995) argued for another approach centered on a more intuitive, empirically-grounded generalisation. He termed it 'naturalistic' generalisation. His argument was based on the harmonious relationship between the reader's experiences and the case study itself. He expected that the data generated by case studies would often resonate experientially with a broad cross section of readers, thereby facilitating a greater understanding of the phenomenon.

Data analysis consists of examining, categorising, tabulating, or otherwise recombining the evidence to address the initial propositions of a study (Yin, 2003a). The analysis of individual case studies is one of the least developed aspects of the case study methodology. The researcher needs to rely on experience and the current literature to present the evidence in various ways, using various interpretations. This becomes necessary because statistical analysis is not aways used in all case studies as in the case studies presented here. Miles and Huberman (1984) have suggested alternative analytic techniques of analysis in such situations, such as using arrays to display the data, tabulating the frequency of events, ordering the information and various other methods. This must be done in a way that will not bias the results. Where possible, attempts have been made to follow the guidelines of Miles and Huberman by:

- Putting data and information into differing and contextually-based arrays.

- Making a matrix of categories of information and placing information within these categories.
- Creating diagrammatic data displays for examining the data and initial model building.
- Tabulating the frequency of differing events and examining the complexity of these tabulations and their various relationships.
- Placing information in chronological order.

Yin (2003a) suggested that every investigation should have a general analytic strategy, so as to guide the decision regarding what will be analysed and for what reason. He presented some possible analytical techniques, in particular

1. Pattern-matching.
2. Explanation-building.

In general, the analysis will rely on the theoretical propositions that led to the case study. If theoretical propositions are not present, then the researcher could consider developing a descriptive framework around which the case study is organised.

Pattern-matching is one of the most desirable strategies for analysis and the strategy employed to greatest effect in this research. This technique compares an empirically-based pattern with a predictive one. If the patterns match, the internal reliability of the study is enhanced. The actual comparison between the predictive and actual patterns will not have any quantitative criteria, hence, the discretion of the researcher is required for interpretation.

Explanation-building, a form of pattern-matching, in which the analysis of the case study is carried out by building an explanation of it has been applied. Explanation-building is an iterative process that begins with a theoretical statement, refines it, revises the proposition, and repeating this process from the beginning. This is known to be a technique that is fraught with problems for the researcher. One of those problems is a loss of focus, although keeping this in mind protects the researcher from those problems.

The researcher carefully reviewed the data to ensure that the analysis was of high quality, including showing that all available and relevant evidence was used, that all rival explanations were explored, that the analysis addressed the most significant aspect of the case studies and that the researcher's knowledge and experience were used to maximum advantage in the study.

As data was collected, the researcher strived to make sense of it. Generally, the researcher interpreted the data on a micro (within organisations) and macro (between organisations) level. Holistic analysis was then used to draw conclusions based on the text as a whole.

3.10. Summary of main points

This study employs a qualitative analysis within the framework of interdisciplinary phenomenology. A holistic case study approach is used to formulate grounded theory on knowledge sharing within the Third Sector. The case study research design takes account of the need for analysis of communities of practice, social networks and collaborative technologies. Holistic and embedded units of analysis are used to assess the presence of the various phenomena under investigation.

Various data sources and research instruments have been deployed including documents, archives, observations and member checking. To aid the choice of research instruments a data collection protocol was designed to test the availability and reliability of data sources.

Data analysis was performed using pattern-matching and explanation-building techniques in line with grounded theory. The researcher constantly reviewed and re-evaluated the data to ensure that high quality analysis, including showing that all available and relevant evidence was used. Rival explanations were explored to ensure that the analysis addressed the most significant aspect of the case studies and that the researcher's knowledge was used to maximum advantage.

4. Case studies and their context

4.1. Introduction

It is important to place the case studies in context before entering into aanalysis and evaluation. Context refers to the conditions in which something exists or occurs. In communications, linguistics and discourse analysis, context is the way participants define the relevant dimensions of the communicative situation. In order to comprehend the communicative context of this study, it is necessary to place the case studies themselves in the context of the historic political, social and economic environment in which they operate. This wider context clearly impacts upon the communicative context of knowledge sharing (Hall 1959; 1966; 1977).

This chapter is designed, in particular, to illustrate the dynamics that exist between the geographical and issue-based activities of the case studies. It also provides an introduction to the membership of the networks and the diversity of partnerships with which they are engaged.

4.2. Newcastle Community Network

4.2.1. The City of Newcastle upon Tyne

The New Castle which gave the city its name was constructed by the Normans in 1080. Its keep and one of its gates still exist, though they are separated from each other by the nineteenth-century railway tracks for which the rest of the castle was demolished to make way. Prior to the Norman Conquest the town was known as Monkchester. Pilgrims came to the Holy Well of Jesus' Mount, now part of Jesmond. One of the biggest shopping streets, Pilgrim Street, is so-called because of the popularity of the well (Pearson 1996).

Newcastle's development as a major city owed much to its central role in the export of coal from the Northumberland coalfield. The phrase "carrying coals to Newcastle" proverbially denotes the act of bringing a particular commodity to a locality that already has sufficient. In the nineteenth century, shipbuilding and heavy engineering were central to the city's prosperity; a powerhouse of the nation's prosperity.

Since the Second World War, the city of Newcastle upon Tyne has suffered considerable industrial decline, reflected in the city's participation in UK government's

Inner City Partnership and Enterprise Zone Schemes. Traditional forms of employment have largely been replaced by more retail and service industries. The city's status as a regional centre has been retained (Holland & Smith).

The city's reputation as a regional shopping centre has been enhanced by the development of shopping precincts such as Eldon Square (1976), Eldon Gardens (1989) and Monument Mall (1992). Road transport to and from Newcastle has been improved with the opening of John Dobson Street in 1970 (the first new major street in the city centre for over 100 years), the Central Motorway East in 1973 and the Western Bypass in 1990. Further improvements in transport came with the opening in 1980 of the Tyneside Metro, a rapid transport system which connects towns on both sides of the River Tyne with Central Newcastle.

During the 1990's the inner city was revitalised under The Newcastle Initiative, designed to regenerate selected areas of the city and establish Newcastle as a vibrant and stylish regional capital. Grey Street, described by the poet, John Betjeman as 'England's finest street' and the historic Quayside have both been re-vamped. Frontages have been cleaned and interiors restored making the whole area a desirable one for business, residential and recreational use. Further west an Arts and Leisure Centre is being created together with the development of the Theatre Village and China Town area.

Despite the ongoing rejuvenation of the city centre, the wider city area contains some of the most deprived neighbourhoods in Western Europe.

The current population of the city is 259,536 and declining and the population between the ages of 19 and 29 is significantly above the UK average.

4.2.2 Origins of the network

In Newcastle, a small number of organisations, namely, Newcastle Healthy City Project, Newcastle Environment Forum, Newcastle Disability Forum and Healthworks, very quickly expressed concern over Newcastle Council for Voluntary Service taking a lead role in this initiative. They felt that Newcastle Council for Voluntary Service had links with a restricted section of Third Sector organisations in the City which would hinder

the development of new community networks whilst frustrating existing community networks in attempts to create new forms of community and governance.

Newcastle Environment Forum played a key role in the early stages of the alternative structure to that offered by Newcastle Environment Forum. One member of Newcastle Environment Forum was the first to hear of the publication of the Community Empowerment Fund guidance and to realise its significance as an opportunity to create what was to be termed a new network of community networks. This Newcastle Environment Forum member emailed the Chief Executive of Newcastle Healthy City Project highlighting the opportunity offered by the guidance and his concerns over Newcastle Council for Voluntary Service's ability to realise the guidance's potential. Representatives of the Newcastle Environment Forum and Newcastle Healthy City Project met with a senior officer of Government Office North East to express their concerns. Government Office North East had little or no objection to an alternative structure and suggested that discussions take place with Newcastle Council for Voluntary Service to seek out an alternative which would deliver the vision of community empowerment embodied in the guidance.

In August 2001, Newcastle Council for Voluntary Service published a preliminary report on the Community Empowerment Fund in Newcastle. This document had the effect of creating a boundary between the Newcastle Environment Forum/ Newcastle Healthy City Project alliance and Newcastle Council for Voluntary Service. The Newcastle Environment Forum/Newcastle Healthy City Project alliance very quickly aligned themselves with Newcastle Disability Forum and Healthworks and persuaded Newcastle Council for Voluntary Service, Newcastle City Council and Government Office North East to support a Community Empowerment Fund options conference that took place in September 2001. This conference endorsed the new network of community networks promoted by the alliance of Newcastle Environment Forum, Newcastle Healthy City Project, Newcastle Disability Forum and Healthworks. As a result of the conference, support for the new network was secured and Newcastle Community Network was established in October 2001. Of the nine members of the group, five had extensive experience in community development work. Four of the group were currently working for their parent organisations as development workers; one was a civil servant; one a local government officer; two were consultants, one on community development issues, the other on environmental issues. The leader of the

group was a Chief Executive of a voluntary organisation, Newcastle Healthy City Project. Two of the group were Labour Party activists and all had significant experience of all levels of governance and working in cross-sector partnerships.

Newcastle Healthy City Project was awarded the contract from Government Office North East to develop the Community Empowerment Fund in Newcastle. Government Office North East provided an annual grant of £155,000 to the Community Empowerment Fund for two years. A further extension of funding, at this level, was granted until March 2006 (Newcastle Community Network 2007).

4.2.3 Network structure

Newcastle Community Network aims to support the Third Sector to take part fully in Local Strategic Partnerships. The Newcastle Partnership is a multi-sector partnership. It involves public sector (local authority, police and health), private sector (local business) as well as the Third Sector. The Government believes that good decisions are made about communities when everyone is involved. The Government wants all members to be equal partners. The Community Network has been developed to help the Third Sector to be equal members of the Newcastle Partnership. Newcastle Community Network is a meta-network consisting of thirteen multi-functional networks. Four of these networks are based on the geographical divisions of the City: North, East, Inner and Outer West. A further nine networks are issue-based as illustrated in Figure 5.1 below.

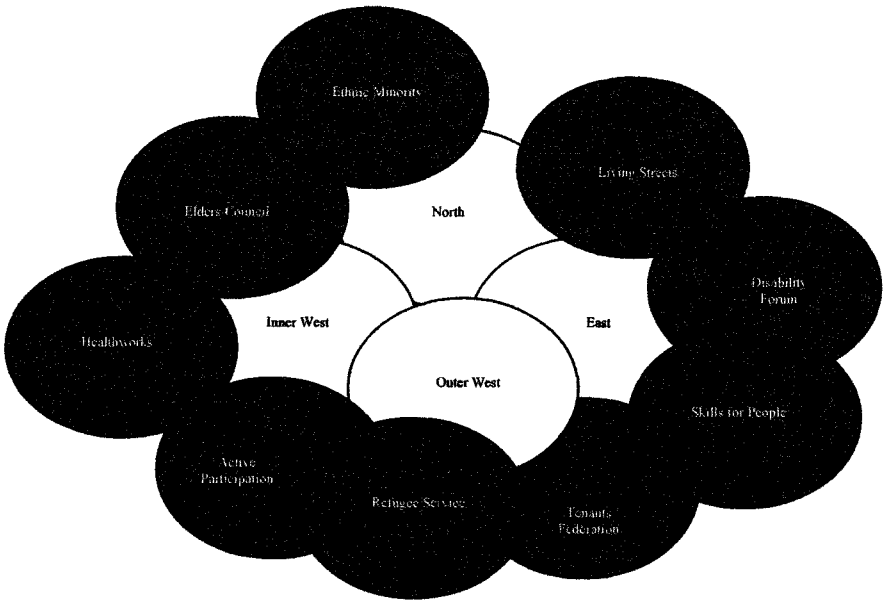


Figure 4.1: Newcastle Community Network

The geographically-based networks correspond to the local authority divisions of the City.

The Inner West network has the highest concentration of Third Sector activity and also contains the most deprived wards of the City. Since the 1980s, many new community-based initiatives have been tried and tested in this area; many have failed. Current thinking in this area claims that the high percentage of failure is due to the lack of direct participation by citizens in new initiatives.

The East network has the second highest concentration of Third Sector activity. The East End of Newcastle, however, is also renowned for the retention of its community spirit despite the adverse socio-economic conditions at the end of the last century. The East End also demonstrates a high level of direct participation in the civil society of the city.

The North network has the third highest concentration of Third Sector activity, but, this has grown in recent years especially in the area of social enterprise. The geographical area is semi-rural containing isolated pockets of high levels of deprivation. As in many

semi-rural areas, public transport is a major issue which is further compounded by the low level of car ownership.

The Outer West network has the lowest level of Third Sector activity. Many new initiatives, are underway and, being a late developer, in terms of Third Sector activity, has the advantage of being able to learn from the mistakes of others.

The issue-based networks reflect the key issues being addressed by the Local Strategic Partnership. A number of these networks are led by issue-specific networks which were established prior to the establishment of Newcastle Community Network:

1. Disability: Disability Forum, Skills for People.
2. Health: Healthworks.
3. Housing: Tenant's Federation.
4. Immigration: Refugee Service.
5. Environment: Living Streets.

Newcastle upon Tyne is renowned nationally for its high level of Third Sector activity. Newcastle City Council retains a database of applications for funding of the sector and, in any given year there are approximately 2,000 projects appearing upon it. Although there is a core of large, often national, organisations in the City, a myriad of groups appear and disappear within each year (Newcastle City Council 2001). The core networking groups, however, are stable with a relatively small number of practitioners serving a number of organisations. It is this group which has formed the hub of the network. They are experienced face-to-face networkers, from a wide range of academic and intellectual backgrounds who have learned to use and develop skills with collaborative technologies that they endeavour to pass onto others. They have developed a website for the network which goes beyond the self-advertising, some would say 'vanity' stage to one of playing a collaborative role by offering access to downloadable documents and mailing lists (Newcastle Community Network 2007).

This core group, within the network, is aware of the high levels of unemployment amongst both the young and the middle-aged. These age groups place differing demands upon technology. Young people tend to be familiar with high-end technology and use the Internet, for example for game-playing, file sharing and downloading music;

they rarely enter into issue-based discussion forums often preferring the chat room style environment for social networking. Middle-aged groups find natural comfort in face-to-face social networks prevalent in pubs, clubs, shopping centres and libraries. This is symptomatic of the sense of community emanating from the shared experience of the industrialisation process. These groups find some satisfaction with online collaborative networking but tend to be more frustrated by the technology than the younger cohort. The core group of the network is aware of the need to create an interface between these two groups in which the young benefit from the social skills of the middle-aged and the middle-aged benefit from the technological skills of the young.

One project, based in Newcastle, the Virtual Volunteering Project (Virtual Volunteering Project 2007), has gone some way to creating such an interface. This project keeps a portfolio of young web designers who are linked to projects, largely managed by older people. The two groups work in such a way that allows for a greater, shared understanding of each others technological needs while, at the same time, increasing levels of technological ability.

Newcastle upon Tyne also has a relatively high level of immigration and patterns of transient economic migration. Many of these migrants have key skills, including skills in collaborative technologies. The core group of the network is involved in attempting to bring this skill set into the interface between face-to-face and on-line networking by linking skills to projects across the City. However, some of this work is often frustrated by the transient nature of migrants to and form the City with many individuals remaining in the City for short to medium term periods of weeks to months (Newcastle Community Network 2007).

4.2.4. Website

http://www.newcef.org.uk/

The Newcastle Community Network website was designed and developed in partnership with volunteers from the Virtual Volunteering Project. The Virtual Volunteering Project, a Home Office funded project, works in partnership to help the Third Sector in the North East develop a web presence. They provide the Third Sector with help to design and develop their websites and provide a free hosting service. They also aim to increase the volunteering opportunities available to those wishing to develop and utilise their IT skills.

The Newcastle Community Network website has a site search engine and site map accessible from the Home page. The contacts page is very well presented with comprehensive details of all staff members, premises and physical locations. There is detailed information in the form of pen portraits, with photographs, of all network representatives on the Local Strategic Partnership along with contact details for all sub-groups. There is a password-protected document sharing facility and discussion forum for Steering Group members. This section demonstrates the high proportion of network members from minority ethnic backgrounds across the City.

The download area of the site contains a number of forms and templates in Portable Document Format files. Newsletters are in downloadable Portable Document Format format in the site's Archive.

4.3 Sunderland Community Network

4.3.1. The City of Sunderland

The City of Sunderland is a metropolitan borough which was created in 1974 and, since 1992, has had city status. The city contains the town of Sunderland and also the neighbouring towns of Washington, Hetton-le-Hole and Houghton-le-Spring. By official measures of both population and land area, Sunderland is the largest British city between Edinburgh and Leeds (Smith 2000).

Towards the end of the last century, Sunderland suffered adversely from the post-industrialisation process. Both shipbuilding (ships had been built on the River Wear for over 1500 years) and coal mining (Monkwearmouth Colliery was one of the largest deep mines in Europe) went into terminal decline. The dawn of the new millennium, however, has witnessed an economic, social and cultural renaissance in the City. Sunderland's Nissan car plant is now the largest in the UK with 12,000 employees. Sunderland University has a new riverside campus adjacent to a thriving marina and an emerging shellfish industry. Sunderland Football Club has a new arena (built on the former site of Monkwearmouth Colliery), boldly entitled "The Stadium of Light" and there is an award-winning Museum and Winter Garden in the heart of the City centre (Milburn & Miller 1988).

4.3.2 Origins of the network

Sunderland Community Network has been emerging as a meta-network since September 2001 under the innovatory leadership of VOICES. VOICES was originally established as Sunderland Voluntary Sector Partnership in 1994 has played an active role in the City of Sunderland Partnership. Three community development workers were appointed in May 1998 to develop networks in areas where there was no existing infrastructure and to build the community and voluntary sector in the city. In 2000, Sunderland Voluntary Sector Partnership gained charitable company status in the name of Sunderland Voluntary and Community Sector Partnership. The official launch of the new company was held in October 2000 to coincide with the signing of the local Compact between the City of Sunderland Partnership and the voluntary and community sector. The name VOICES was adopted to reflect the role of Sunderland Voluntary Sector Partnership in ensuring local people's needs, views and opinions are integral to the decision-making processes of policy makers at local, regional and national level.

The core group of VOICES has many years of experience of community development activity stretching back to the 1970s, long before the introduction of the Internet and other network technologies. Some members of the core group have taken readily to email and other network technologies while others struggle with it. All, however, are very skilled face-to-face networkers and demonstrate a high level of trust in the communities they support.

The meta-network provides a range of knowledge sharing platforms through which dialogue can flow, both formally and informally. These platforms include formal strategy meetings, informal lunches, events and residential conferences and seminars as well as sharing documents and discussion via email and the Internet. Key informants constantly refer to the informal dialogue, which takes place before, after and around meetings. The informal sharing of knowledge is seen to lie at the hub of the collective learning and knowledge sharing process, which takes place within the meta-network. Access to knowledge is sought in a seamless way by combining face-to-face informality with document sharing and the use of email firmly grounded in the needs of communities. Knowledge is also accessed via mobile telephone and text messaging which adds value to the use of other technologies. A high level of trust is placed upon individuals with key skills and competencies, within the network, as containers and carriers of knowledge on community development.

Sunderland Community Network has been debating, for more than two years, the importance of legitimising peripheral participation (Lave & Wenger 1991) within the network and the Local Strategic Partnership. Legitimate peripheral participation provides a way to speak about the relationships between 'newbies', 'veterans', activities, identities (Wenger 1998), communities of knowledge (Brown & Duguid 1991) and practice. It is concerned with the process by which newcomers become part of a community of practice (Wenger et al. 2002). As a result of this debate, a model has been devised which aims to provide a means of legitimising peripheral participation within it. In this model, members of the network are divided into a tripartite framework of community development responsibilities within each of the twelve themed and six area-based neighbourhood renewal groups of the Local Strategic Partnership, as follows:

1. Capacity-builder: with previous partnership-working experience, well-developed informal and formal meeting skills and knowledge of decision-making structures.
2. Mentor: with experience of representation or other partnership working.
3. Learner: with experience of meetings at a neighbourhood level but no previous representation experience.

Clearly, individuals tend to exhibit all of these roles to a greater or lesser degree. In terms of the meta-network, however, these three roles form a dynamic learning framework for the community participants within the eighteen working groups of the Local Strategic Partnership. It is clear that this tripartite framework creates a dynamic model for developing informal communities of practice as the three roles constantly combine and disperse leaving critical masses of knowledge which can be accessed in a number of ways through (Sunderland Community Network 2007):

1. The manipulation of the spaces where communities are formed.
2. The establishment of networks.
3. The creation of knowledge sharing spaces.

4.3.3. Network structure

Sunderland Community Network forms the neighbourhood-based component of the City's renaissance and is open to community groups, community networks, voluntary

sector organisations, volunteers and residents who are, or want to be, active in their communities. The network aims to link together neighbourhood renewal (Social Exclusion Unit 2000) areas of the city in communities of practice, maximise the power of communities to shape the future of the city, provide a decision-making and discussion forum for communities, provide effective, meaningful and co-ordinated representation at all levels of the City Council's Local Strategic Partnership (Neighbourhood Renewal Unit 2001) and provide a structure of accountability for community representation and the communication of information. In summary, it aims to capture, store and transfer the wide range of knowledge contained within Sunderland's community-based organisations and make this knowledge accessible to other sectors. The meta-network consists of six area-based networks: north, south, east, west, coalfields and Washington and six interest-based networks: women, lesbian and gay, young people, older people, disability and ethnic minority (see figure 5.2).

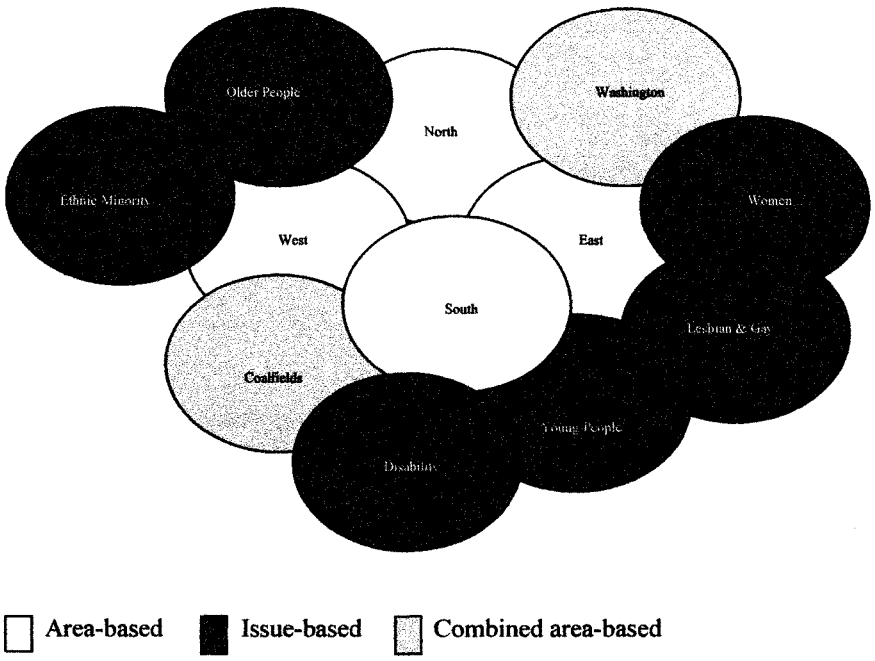


Figure 4.2: Sunderland Community Network

The East End network is the most developed Third Sector network in the city with a history of active citizen participation stemming from the 1960s. In recent years, a number of social enterprise projects have originated in the area and best practice has spread to other areas. The West network contains Pennywell which was once of the largest social housing projects in Western Europe. This area has historically suffered

from high levels of deprivation and anti-social behaviour. The high levels of anti-social behaviour have resulted in a number of projects based on the needs of young people.

The North and South networks are divided by the River Wear and contain some relatively high pockets of deprivation. These pockets of deprivation have recently received special attention from various regeneration programmes.

The Washington area, a largely self-contained 'new town' has a relatively high level of Third Sector activity and also a number of new high-prestige regeneration projects. Many of these projects originate from high-profile partnership pilot projects with the Sunderland City Council, City of Sunderland College and the private sector.

The coalfield forum covers the areas of Hetton, Houghton-le-Spring, Copt Hill and Shiney Row. It consists of active citizens, workers and organisations. It is formally constituted and has an elected Chair and Officers. It also employs a Development Worker and Administration Officer. They share ideas, information and skills and access resources that improve the education, economic, training, health, employment, social and leisure opportunities of the Coalfield Community. The interest-based networks reflect the interests identified for special attention by the Local Strategic Partnership.

The University of Sunderland offers an Honours Degree in Community and Youth Work Studies. The course has a successful track record gained over the last 25 years in supporting community activists from the City and beyond. It provides an opportunity for people who are active in their communities, particularly mature students, to study for both a professional qualification and an Honours Degree that is widely recognised as the appropriate qualification for a variety of occupations in the field of social welfare and informal education. It is targeted at those with relevant community and youth work experience, in exceptional circumstances younger candidates will be considered although students will generally be at least 21 years of age. There is a strong emphasis on student-centred approaches to learning through linking practice to theory and policy.

The philosophy, that this course exemplifies, is often referred to by key informants as being exemplified by the work of Paulo Freire (1973). In the early 1950s, Paulo Freire was embarking on a distinguished career in the state educational systems in North Eastern Brazil and had begun to specialise in setting up and running adult literacy

programmes. During an introductory seminar for illiterate and semi-literate adults, a labourer who had listened to the young Dr. Freire's presentation on the benefits of learning to read and write, stood up and challenged him to understand what kind of world the members of the audience inhabited. The labourer made quite an impression: Freire never forgot the highly evocative word-picture painted by this illiterate man speaking in the local vernacular. He spoke of the poverty that he and people like him endured, of their inability to speak like educated people, of what kind of homes and families they had to support. The task that Freire then set for himself and would-be democratic educators was to assist the poorest people 'to develop their own language', as part of a process through which they envisioned and anticipated the 'new world' that their literacy could make possible. The linkage between the political and the pedagogical was fundamental to Freire's thinking and his growing influence as an educator. As time went on and his experienced broadened, his thinking incorporated ideas on critical reflection, dialogue and participation, autonomy, democracy and the crucial connection between theory and practice.

Some members of the core group have completed this course. Others, not members of the core group, who have also completed the course, form a community of practice which views the process of community development as a form of liberation philosophy. Dialogue takes place on the issues raised by Freire on a range of platforms, including, face-to-face, computer-mediated and text messaging with collaborative technologies being used in a highly personalised manner. This results in a well developed domain, community and practice of community development. The core group within the network have personal and professional associations stretching back over 25 years, hence, each member is well-versed in the significance of social networking and the power of technology in facilitating this process. Various technologies have been deployed successfully in the strategic development of the network and this is evident in the content of the network's website. However, the core group is aware that knowledge is contained within existing networks and meta-networks, across the City, which could be used more effectively.

There is some evidence in the City that a number of networks are operating counter to others. For example, there is a powerful 'old guard' network, centred around the Labour Party which often attempts to block knowledge sharing with certain groups. On the other hand, the coalfield areas, with their strong sense of community tend to accept the

knowledge held within their community while being suspicious of the knowledge held within other communities (Sunderland Community Network 2007).

4.3.4. Website

http://www.sunderlandcommunitynetwork.org.uk/

The Sunderland Community Network website was designed and developed in partnership with Sunderland City Council's ICT Unit with financial support from the Government's E-Champions programme. This design and development package included supplying 60 community development practitioners with cost-free laptops, printers and Internet connections with technical support provided by the E-government Unit. Training courses in the use of MS Office and basic Internet and email skills was also provided. Sunderland City Council's E-Champions Division provides both online and offline technical support on hardware and software issues.

The practitioners involved in the E-government exercise are expected to attend core meetings of the network and a range of themed activity groups while acting as a learner, mentor or capacity builder within various levels of the network. They are also expected to convey best practice in the use of ICTs and convey key changes in network practice to their originating organisations. This structure is effectively a meta-network, a network of community networks, although, clearly the group would not describe itself as such.

Site content is managed through a combination of Contribute for web page management and a Microsoft SQL Server to manage data. A member of staff is designated as Content Manager having been trained in these skills by E-Champions Division staff.

The website is divided into a password-protected member's area and a range of pages of publicly-accessible content. The member's area contains a discussion forum and a document store. There are a number of broken links and spelling and grammatical errors within the publicly-accessible pages. There is an online calendar where events can be publicly webcast. The site also offers two free online capacity-building tools produced by the Open University: video conferencing (Flash Meeting) and a chat room (Hexagon).

There are a number of large, unedited, publicly-accessible PDF files. A Newsletter is produced on an ad hoc basis and this is available online.

4.4. South Tyneside Community Network

4.4.1 The Borough of South Tyneside

South Tyneside is relatively small in terms of geographical area (24.98 square miles) and population (152,785). The North Sea lies to the East and to the North the River Tyne. There are 9.12 square miles of green belt at its southern boundary. The main administrative centre and largest town is South Shields. Other riverside towns are Jarrow and Hebburn, with significant villages located at Cleadon, Whitburn and the Boldons. St. Bede held court here for scholars from all over Europe, creating one of the earliest centres of international learning in our civilisation. Today, Bede's World continues to attract visitors from around the world to this reconstructed 11 acre Anglo-Saxon farm with ancient church and interactive museum (Hodgson 1924).

Overall the Borough has well maintained social housing. It also has one of the most diverse ethnic minorities in the region. Yemeni and Bangladeshi communities form the largest part of these ethnic minorities and contribute to the social and economic life of the Borough playing an active part in its civic and political life (Johnson 2001).

4.4.2 Origins of the network

STRIDE is the responsible body for South Tyneside's Community Network and supports and represents over 700 Third Sector groups to actively participate in the regeneration of their borough through the Transformation partnership (South Tyneside Council 2007). STRIDE's aims are to:

1. strengthen community and voluntary organisations in their role in social and economic renewal;
2. provide a network of community and voluntary organisations through area forums;
3. and, influence and take part in decisions that will develop the local economy.

South Tyneside Community Network emerged from a consensus between STRIDE and South Tyneside Council for Voluntary Service on STRIDE's strategic and resource-laden ability to manage the network and South Tyneside Council for Voluntary

Service's ability to deliver operational support (South Tyneside Community Network 2007).

4.4.3 Network structure

South Tyneside Community Network is a co-ordinated voice for residents, community and voluntary groups in the regeneration of South Tyneside. Hundreds of local groups take part in South Tyneside Community Network as members of five area forums which work to share concerns, ideas and solutions for the borough's future. The forums democratically elect STRIDE's Board of Directors and act as a voice for the community in Transformation, South Tyneside's Local Strategic Partnership. STRIDE's Community Development Team offers groups the support they need to make things happen from running visioning events, to setting aims and objectives, to developing action plans for future work. The team has supported many groups with action-planning. They help groups develop and successfully meet aims and objectives. The meta-network consists of the five area forums: South Shields, Hebburn, Jarrow, Boldon, Cleadon and Whitburn and Boroughwide. There are also three interest-based networks: Health, Enterprise and Fundraising (see Figure 4.3).

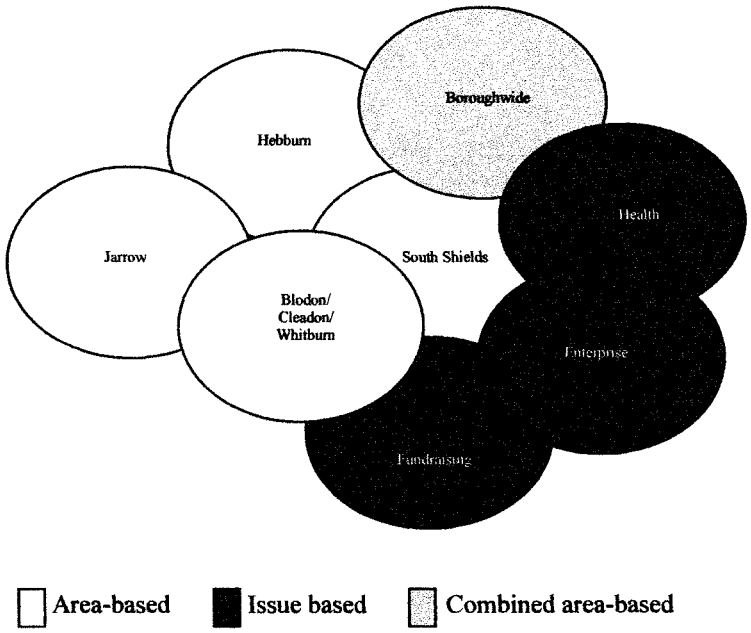


Figure 4.3: South Tyneside Community Network

Boldon, Cleadon and Whitburn Forum brings together groups from the three villages to consider local needs and find solutions. The forum established Point in Time, an acclaimed drugs and lifestyle awareness project for children and young people.

Boroughwide Forum acts as a voice for all those Third Sector organisations whose work covers the whole borough, and attracts members from various groups. This forum plays a key role in ensuring that community concerns are raised within the borough's Local Strategic Partnership, and is working to set up a Social Inclusion Group to make sure that everyone in South Tyneside benefits from the partnership's work.

Hebburn Forum has made a big impact on life in the town over the past seven years. The forum enabled local people to have a major influence on the Single Regeneration Budget Round 4 programme, 'People, Employment and Pride', which brought over £4 million to Hebburn and North Jarrow between 1998 and 2002. Aware that local groups needed a source of small grants, the Forum initiated the Hebburn Capacity Fund, which brought thousands of pounds to local organisations like St. Cuthbert's Church Hall, St. Aloysius Toddlers' Group and Luke's Lane Community Centre. More recently, the Forum hosted a special meeting to discuss the future of Hebburn Shopping Centre. Over 60 people crammed into Hebburn Community Centre and agreed a three-point plan for improving the centre.

Jarrow Forum provides a strong voice in local community issues. Jarrow Forum launched 'The Case for Jarrow', a comprehensive study of local facilities, needs and views in the town. Completed by forum members over a six-month period, The Case for Jarrow document was the catalyst for several regeneration projects. Another Jarrow Forum initiative is Connect, an accessible community transport project for groups in South Tyneside. Arising from a discussion among forum members, Connect has now brought £650,000 into the borough to offer co-ordinated transport for local groups.

South Shields Forum had a big influence on recent regeneration projects, which brought over £10 million into the town. Another Shields Forum initiative is BLISS=ABILITY, a group who are working to set up a centre for independent living in the borough. The group came together after a forum discussion and have developed ambitious plans to bring together a range of services for disabled people under one convenient roof.

HealthNet is a health forum for the Third Sector. It brings together groups who have an interest in health, ranging from the Carers' Association to Mental Health in South Tyneside and the South Tyneside Arts Studio. Set up in 1999, it recently secured South Tyneside's biggest ever lottery award, securing £1 million from the New Opportunities Fund as part of a programme of health projects worth a total of £4 million. The programme includes a health information shop which will be home to six workers offering health information to local people, while a team of six 'buddies' will help people who need support to use local services.

The Enterprise Forum works to encourage development of community and co-operative enterprises in South Tyneside. The forum initiated enterprise and employment events bringing together consultants on training, employment and business start-up. The Fundraisers' Forum offers the opportunity to share both successes and failures in fundraising (South Tyneside Community Network 2007).

The core group of the network consists of highly-accomplished face-to-face networkers who have played a key role in establishing the strategic aims of the network. However, among this core group, there is a relatively low level of community development skills. This may be illustrative of the nature of community-based projects in South Tyneside which tend to be driven by community activists rather than professionals. Overall, within the network, there is low level of usage of collaborative technologies. The website is at the self-advertising, 'vanity' stage offering little by way of interaction. As there is a high level of reliance on face-to-face networking to progress the network, it contrasts sharply with the integrated use of collaborative technologies evident in both Newcastle and Sunderland.

4.4.4. Website

http://www.stridenetwork.co.uk/

The South Tyneside Community Network website was designed and developed by a web design company, based in Newcastle, trading as Differentia Limited. Differentia advertises itself as an ethical and socially responsible business. In general the company seeks to obtain work from the environment and education sector and achieve sustainable projects in an environmentally responsible manner. Differentia provided a Content Management System for STRIDE, the website managers, based on the axessCMS Model. Recently, site management has been sub-contracted to Cubik as Differentia have

moved from providing direct services to the Third Sector. Cubik develops and designs content managed websites, built upon Microsoft Content Management Server 2002 and SharePoint technologies.

Overall the site is divided into eight key areas:

- Home
- About Us
- Community Voices
- Services
- Contact Us
- Diary
- Links
- Fundraising Advice

The site is searchable from the Home page. There is a password-protected member's area containing a discussion forum and document store. The About Us page contains very limited content on the function and form of the network amounting to two paragraphs in total. The Community Voices section contains details of the various forums: Boldon/Cleadon/Whitburn; Hebburn; Jarrow; South Shields; Transformation. This section also includes downloadable copies of minutes and agendas of the forums. The Services section contains details of the support services offered by the network's parent organisation STRIDE. The Contact page contains comprehensive contact details for all core staff members. There is a Diary of events and a limited list of links to useful sites.

In contrast to the other two networks, there is a separate section on fundraising advice which appears out of place in the context of a networking site.

4.5. Summary of main points

The above section creates a context for viewing the chosen case studies in terms of their historical background, network origins, their structure and use of network websites.

The case study scenarios have a shared economic background of ship building, repair, coal mining and heavy industry. All are geographically located on the Tyne and the Wear rivers with South Tyneside and Sunderland at the mouths of the Tyne and Wear respectively. Newcastle is inland from the mouth of the Tyne and previously developed as an armaments and heavy industry manufacturer. Currently, however, Newcastle provides the financial and service core of the region, Sunderland's largest employer is the car industry while South Tyneside provides a valuable service to the region as a small to medium business enterprise incubator.

The origins of the networks also vary according to the original lead agency for the development of the network and the network's development is relative to:

- The nature and strength of the Third Sector within each local authority area.
- The local authority's relationship with the Sector.
- The capacity for adaptation and change of the lead agency.

The use of community network websites varies greatly from the provision of a 'vanity' site in South Tyneside, a partially collaborative website in Newcastle and more advanced use of collaborative technologies in Sunderland.

5. Situation and structure: practice in communities

5.1. Introduction

This and the following chapter are engaged in the process of examining fieldwork findings in the context of the research objectives. These sections analyse the political, social, economic and cultural context of knowledge sharing, evaluate the interaction between communities of practice and social networks as knowledge sharing platforms and map the relationship between face-to-face dialogue and the use of collaborative technologies in knowledge sharing. The primary aim of this chapter is to address objective one: analyse the political, social, economic and cultural context of knowledge sharing. It begins by setting the context of meta-governance in which knowledge sharing takes place and goes on to explore the enabling of knowledge sharing within communities of practice. It pays particular attention to the function, form and content of communities of practice, organisational culture, use of community space, organisational learning and the propensity for groupthink.

The identifier codes utilised for this chapter are derived from the professional and governmental interviews with respondents, hence, government officers are prefixed with 'G' and non-governmental professionals prefixes with 'P'. Similar identifiers are also used for the community network respondents: Sunderland (SCN), South Tyneside Community Network (STCN) and Newcastle Community Network (NCN).

5.2. The context of meta-governance

Figure 5.1 (below) is an attempt to show how the four main types of governance in the North East intersect and illustrate the roles of governance fulfilled by central government, regional government, local authorities, and community networks within the context of meta-governance which this intercession creates. This model is adapted from the work of Newman (2001) on the nature of governance in the United Kingdom since 1999. This period is recognised, by Newman, as creating a form of governance far more complex than any other previous UK governmental regime. Understanding the context of meta-governance is crucial to envisioning how potential knowledge can be shared within and between individuals and organisations. However, discussions on the nature of meta-governance have largely happened in political institutions without reference to the meta-governance capabilities of collaborative technologies, although, discussions on the issue have taken place in academic institutions (Grieco et. al. 2003). Despite this

dichotomy of debate, two persistent themes have emerged in terms of institutionalised meta-governance (Holmes 2003):

1. The importance of taking a strategic integrated approach to social, economic and cultural regeneration which interfaces across all sectors.
2. The desirability of the active participation of the affected communities in both sector-based and cross-sector partnerships.

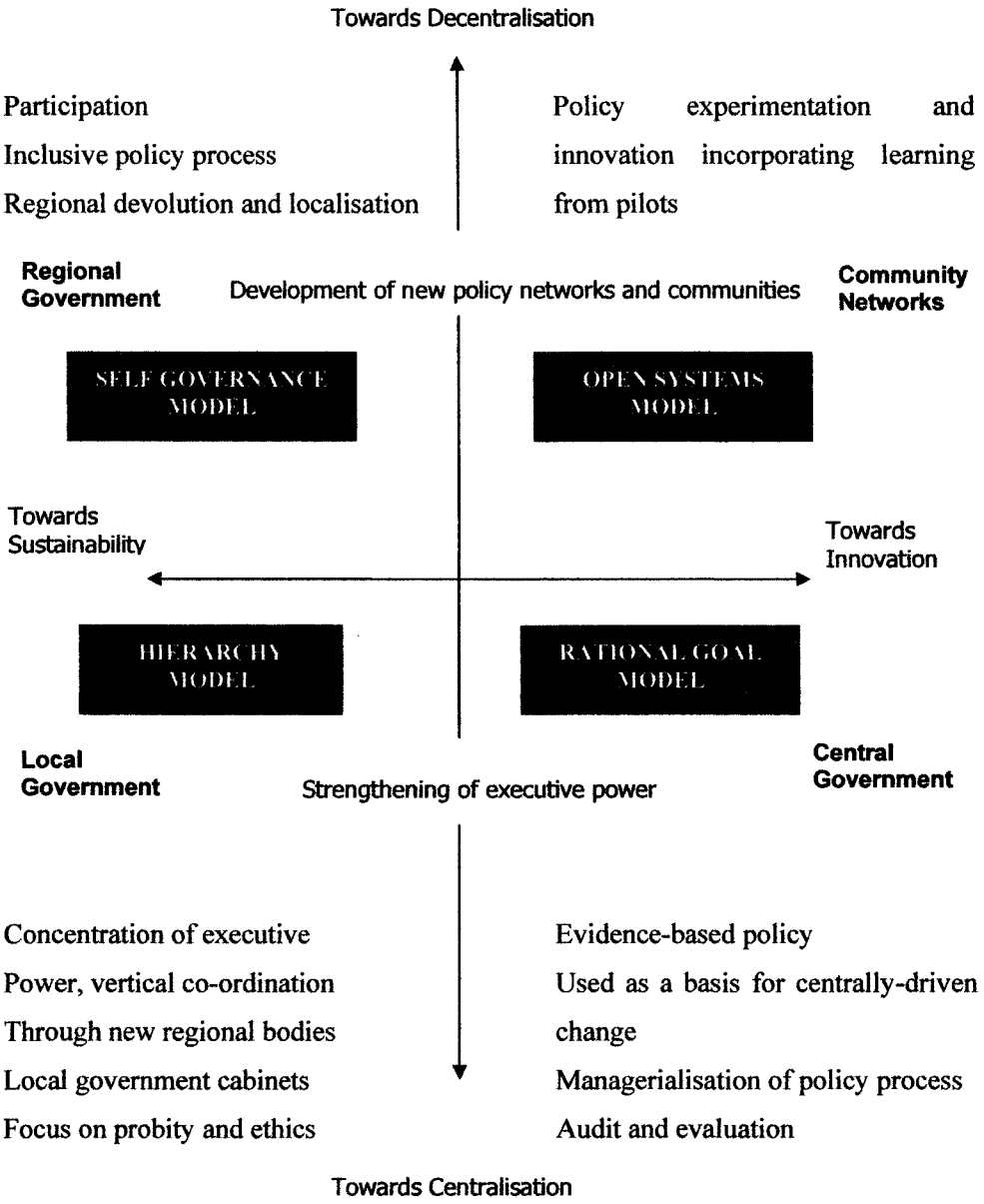


Figure 5.1: Meta-governance - combined models of governance

In terms of meta-governance, community groups are constantly affected by a duality of purpose. Groups are, simultaneously, attempting to build new networks and develop new infrastructures. This is a highly complex scenario which discourages new members from joining groups (Walker 2003).

As a result, communities of practice, social networks and collaborative technologies can provide varied platforms for knowledge sharing within a highly complex topology of situations and structures. Such topologies are reflected in Figure 5.1 and the subsequent commentary.

In the bottom right quadrant of Figure 5.1, central government displays many of the features of the rational goal model of governance. While attempting to be innovative in their approach to modernising governance, they are continuing to centralise executive power. They attempt to drive forward change from the centre; albeit through regional government offices. These regional offices are subject to strict management of the policy process and constrained by well-defined processes of audit and evaluation.

Central government's role within meta-governance is seen by one civil servant (P7) as a 'water-carrier' involving intelligence-gathering and attempting to 'join-up' areas of central government which are resistance to change. Although, central government have a dual agenda of renewing neighbourhoods and modernising government, these two aims appeared, infrequently to compliment each other in the manner envisioned in guidelines. Hence, Government Office North East is often the bearer of 'bad news' to policy-makers at the centre.

P7 was also clear that, in attempting to move from a project management function to a knowledge sharing strategy, there has to be a clear understanding of the complexity of multi-disciplinary and multi-tasked groups. Without this understanding, networks could and would most likely emerge which were of a differing form to those initially envisaged. These networks would be complex and capable of being manipulated on a personal level by effective networkers but would fail to add significant value to the concept of 'joined-up' government.

This position was summed up very succinctly by a Principal Officer at Government Office North East (G1):

> Central government are keen to progress community empowerment as a knowledge management and intelligence-gathering exercise, hence, it is important that Government Office North East consults with community networks on a wide range of issues other than community empowerment itself.

P4, a regeneration consultant, was clear that central government were trying to 're-invent government' but were not completely sure how the new invention looked as they seemed to be seeking a blueprint from the key players themselves. He stated that, 'there is a need for a knowledge hub with appropri
envisage what form this would take and how it would add value to current ways of working.

P5, an academic, was convinced that the Third Sector was having greater responsibility forced upon it by central government because they delivered more at a cheaper price than equivalent public sector agencies. This, he argued was not realistic as large organisations would tend to survive as they are more capable of absorbing overheads. The Third Sector has a history of symbiotic relationships between small and large organisations and this should be nurtured. Others sectors, he states, have no history of attempting to understand the Third Sector, but the Third Sector is expected to understand them; a 'somewhat incongruous relationship'.

P4 states:

> Central government bureaucracy is past its sell-by date. It has failed in the past, why should it succeed now? We need to pursue policy in different ways.

Central government expects organisations to 'perform a complex duality of relationships' (P6). P6 also stated that there is an ambiguous relationship between Local Authorities and Central Government. It is not clear where one area of responsibility ends and another begins.

In the bottom left quadrant of Figure 5.1, the Local Authority displays many of the features of the hierarchy model of governance. While aiming for sustainable development at a neighbourhood level, they are also continuing to centralise executive

power. Their internal organisation reflects the vertical co-ordination of new regional partnerships and cross-sector working at a sub-regional level. They are moving executive decision-making away from the neighbourhood level by the process of creating a political elite in the form of mayoral and cabinet-based government. Finally, they adopt an ethical standpoint on social exclusion seeing themselves as champions of marginalised communities.

P2, a Local Government Officer in Sunderland, saw the large metropolitan areas of the region as featuring prominently in the development of this meta-governance framework. Seeing it as a form of club of which it was impossible to ignore the need for membership. P2 was adamant that the delivery of services at local level should always be in the hands on the Local Authority as they were the responsible body for financing these services. P2 also referred to the need to pursue a broader regeneration agenda in partnership with all key players in the meta-governance model.

A Local Government Officer in Newcastle (P9), took a differing position from P2 seeing the Local Authority as a facilitator and mediator of best practice between all players, and, as such a key knowledge sharing player. He also suggested that One North East could play a greater role in this process of facilitating knowledge sharing, due to its widespread geographical and cross-sector networks which have a 'massive untapped potential'. This untapped potential could only be released through devolving, rather than centralising power with support from appropriate resources. P9 also emphasised the complexity of relationships between agencies within the meta-governance model with many gaps and overlaps in roles and responsibilities which need to be addressed by appropriate knowledge sharing.

P5, an academic, claimed that the Local Authorities were too involved in labelling the roles of the various sectors. This takes no account of the diversification of these sectors. What Local Authorities are attempting to do is re-allocate resources; 'balance the books'; create a better bottom line so they could access a greater level of central government resources'.

In the top left quadrant, the regional assembly displays many of the features of the self-governance model of governance. The assembly aims for sustainable development at a regional and sub-regional level while developing new policy networks and communities

aimed at decentralising power. They champion citizen participation and inclusiveness in the policy-making process.

P8 described One North East as involved in a complex strategy between holding a wide range of economic development funds on behalf of central government, while, at the same time, attempting to deliver coherent sub-regional development strategies. Such strategies are aimed at creating effective partnership relationships but it was not always easy to match inherited funding regimes with these partnerships. This has left One North East with a multi-layered scenario of accountabilities which were often difficult to manage.

Attempting to unravel this complexity of responsibilities suggests an enhanced role for the collaborative use of technologies (P8). This would ultimately lead to smaller organisations with much greater strategic development roles. P8 felt that this was in line with central government policy and the collaborative use of technologies could greatly assist appropriate and effective development of SMART (Strategic, Achievable, Realistic and Time-limited) strategic organisations.

One problem with this strategic development according to P8 was the role of Government Office North East who need to realise that 'there is room for different forms of expression'. He also felt that the Third Sector was marginalised from strategy and policy development. They were always consulted but their views rarely found a key place in strategy documents.

P6, in his role as Chair of a Local Strategic Partnership, felt that:

> The role of regional agencies is crucial to strategic development. However, we need to build greater flexibility into complex systems. Make complex systems simpler.

In the top right quadrant, the community network displays many of the features of the open systems model of governance. The community network aims to combine innovation and decentralisation in the development of new policy networks and communities. They are committed to an incremental policy approach, learning from

pilot and experimental projects. They are fully committed to the principle of 'joined-up' government, networking and partnership working.

P3 expressed the view that the Third Sector is victim to too many 'changing cultures and shifting attitudes' to play a significant role in community network development. Some organisations were culturally immune to change, seeing their attitudes and beliefs as superior to other sectors. This needs to change. The emergence of community networks should be seen as an innovative way of being involved in forms of learning. This would increase the opportunities available to the Sector and speed cultural change and a shift in attitudes.

The first step in grasping this opportunity, states P3, is to convince the Sector that there are different ways of seeing the world and new ways of working are possible. However, the Sector needs to be convinced of 'what is in it for them?' There needs to be a coming together of social enterprise, strategy and vision which is geared for change. This needs to be realistic and not based upon some form of central government rhetoric. The Third Sector needs to geared to change and constant revision. They need to engage in a process of re-marketing and re-branding; the kind of processes which are constantly taking place in the private sector. Social enterprises are showing signs of such engagement, therefore, their best practice should be drawn to the centre of the Sector.

P4 stated that within community networks, two models of regeneration exist, an insider and an outsider model. The insider model has been devised by central government to manage the policy process, whereas, the outsider model was driven by those, in the neighbourhoods, who had seen previous models fail and were attempting to convince central government that a new way forward was needed. Regeneration consultants could facilitate the coalition of insider and outsider models given tools and resources.

P5 emphasises that the Universities have a key role to play in achieving good quality student placements with those organisations involved in community networks to facilitate knowledge sharing. Well-organised placements can create an appropriate feedback mechanism for exchanging knowledge on theory and practice between organisations.

The interactive combination of all four quadrants of governance gives us the context of meta-governance of this study. The quadrants are not mutually exclusive and tend to overlap significantly through differing, emerging and reforming partnerships around key issues. However, such a paradigm does provide a platform for analysis of the political, social and economic context of Third Sector knowledge sharing.

5.3. How is knowledge sharing enabled in Third Sector communities of practice in the North East of England?

In this section, the function, form and content of communities of practice, their core-periphery relationships, how they address cultural issues, their use of space, group learning and susceptibility to groupthink are examined.

5.3.1. Communities of practice in community networks

As stated previously, the collective purpose of a community, the goals and roles of the individuals within it all influence its social interaction. As a result, a community is defined as a group of individuals sharing a common set of values or beliefs (Preece 2000).

It is interesting to note that Wellman (1997), using social network analysis to define community, refers to the key characteristics of a community as:-

1. sharing resources;
2. providing support;
3. and showing reciprocity.

These characteristics are similar to those used by Wenger (1998) to describe a community of practice. So, communities of practice can be considered as formations within social networks. There are several varying definitions of communities of practice but the following definition combines the various elements of these definitions:

Communities of practice are groups that share knowledge, learn together and create common practice. They demonstrate shared mental models, a common culture of information sharing and a sense of community that enables learning.

The definition given above proves useful in providing a list of six critical success factors for a community of practice which were the subject of investigation in the previous chapter:

1. Sharing knowledge.
2. Learning together.
3. Creating common practices.
4. Sharing mental models.
5. Having a common culture of information sharing.
6. Displaying a sense of community that enables learning.

(Derived from: Wenger et al. 2002)

A number of members of the communities of practice under investigation had difficulty seeing themselves as a community referring to themselves as a form of loosely-associated network with a common purpose and a shared set of aims and objectives. There was a strong feeling that a sense of community could only be nurtured over time and the relative newness of the communities meant that the feeling of comfort produced by a climate of reciprocity and trust was not yet prevalent. This situation was further compounded by the duality of purpose of community networks identified in the early stages of the three community networks under investigation:

1. A short-term objective of delivering the time-limited Community Empowerment Fund programme.
2. A long-term objective of creating a new network of community networks which would directly impact upon governance.

Both impact upon the sense of community within the network as not all members are committed to both roles leading to a dichotomy in the perception of roles. Hence, a complex relationship between social networks and communities of practice emerged in order to deal with the duality of purpose and dichotomy of roles.

Close ties between social networks and communities of practice can be difficult to disaggregate. It is clear that the term community network leads to a mindset which creates a dialogue on the network rather than on communities. The community networks were directed by the lead organisations which formed theme-based communities of

practice to access knowledge and best practice, on certain issues. As a result, this research reveals that a community network is a dynamic array of communities of practice and social networks.

Members of the network and communities of practice tended to view the constellation of groupings as appropriate mechanisms for sharing knowledge, but, saw community networking knowledge as multi-faceted including a range of areas of specific skills relative to governance, such as:

1. An understanding of the complexity of community development.
2. Skills in social networking and facilitating knowledge sharing.
3. An understanding of systems of governance which was based upon grass-roots experience.
4. Experience in obtaining and allocating grant-aid, in particular, how and when grant-aid programmes can assist community networking principles.

When the informants were asked how the network shared knowledge they gave the following responses:

> 'By sharing and highlighting differences in backgrounds and experience.' (SCN: A2)
> 'By discussion at meetings.' (STCN: C3)
> 'By conversation outside meetings.' (SCN: A4)

Three informants also highlighted the use of email as being a critical means of sharing knowledge due to its informal and instantaneous nature. However, the majority still had a deep-seated belief in the power of informal face-to-face meetings as being the most effective tool for knowledge sharing.

All communities appeared to share a mental model of community networking and of the best practice within each themed community, but views on the collective purpose of the group varied. The communities operated within a complex network of governmental, quasi-governmental and community-based organisations referred to previously as meta-governance. This complexity proved both a source of strength and a weakness in the development of communities. Some members of communties, an identifiable minority, were clear as to the purpose of the group from the outset as they had been involved in

the establishment of the core group of the network. They tended to be from organisations that could demonstrate an appropriate strategy and processes for managing knowledge within organisations (Brown & Duguid 1998). Others, however, whose organisations failed to demonstrate a knowledge sharing strategy, were clearly confused as to their relationship to other organisations and ultimately about the purpose of the community.

Communities also appeared to share several patterns of behaviour:

1. They acknowledged they were engaged in a process of phased development of communities, seeing themselves as custodians of a body of tacit and explicit knowledge relevant to community networking.
2. They acknowledged that the network and communities needed wider representations of views within specific areas of expertise, especially from women and black and ethnic minority groups.
3. They saw the network and its various working communities as a key player in engaging existing structures of governance in an informal way which was not possible using other more formal structures.
4. They were striving to create a new model of community networking, a network of community networks, through theme-based communities of practice which would add value to the wider context of governance in which they were operating.

Among those on the periphery of the network, however, a number were unclear, both on the role of the network and communities. There were a number of responses to questions on how those on the periphery saw their role. Here is a selection of responses to the question, "What is the purpose of the group you are currently involved in?":

> 'To use the fund as a tool of empowerment to bring democracy to the City.' (SCN: A1)
>
> 'To give validity to Newcastle Healthy City's role in creating a network of community networks.' (NCN: B2)
>
> 'Make sure groups, especially from marginalised communities, can access the Community Empowerment Fund.' (NCN:B4)

As stated previously, officers in Government Office North East saw the introduction of the Community Empowerment Fund and Local Strategic Partnerships as a 'courageous' new move within governance. They saw themselves as taking key messages from grass roots communities of practice to the policy-making centre in Westminster; informing the process of 'joined-up' government. They were also mindful of the dual agenda of neighbourhood renewal and local government organisation. Their role was defined in terms of developing the micro project management of previous initiatives to macro knowledge management of the diversity of practice prevalent in the sector. They formed part of a new central government worldview where they saw themselves as multi-disciplinary and multi-functional with a wide knowledge base from which to build working models and composite pictures of communities of practice and social networks.

The Local Authorities tended to support the idea that Councils for Voluntary Service should lead community networks, but, this was not the case in Sunderland, Newcastle or South Tyneside where the lead was taken by independent Third Sector organisations. Had the lead been taken by traditional service delivery Third Sector organisations, the dynamics of communities of practice and social networks would have been different both in terms of function and form. The leadership of the networks by the various lead organisations was criticised by the Local Authorities, except for South Tyneside, for failure to clearly establish a pattern of 'who does what?' It is interesting to note that the Local Authorities in Sunderland and Newcastle make a considerable financial contribution to the funding of the Councils for Voluntary Service which it sees as the primary interface with community-based organisations. South Tyneside Metropolitan Borough Council, however, does not fund the Council for Voluntary Service and demonstrated a more progressive attitude to the role of STRIDE in the community network.

Some respondents felt there was a need to be clear about how events take communities forward. Is it just a case of attracting people to the community? How do those from the periphery become active members and remain active members? Do we need to work more closely on an individual level to exchange best practice? Can we do this as effectively online as we do face-to-face when we already that there is no substitute for face-to-face contact? (NCN: Workshop: 14/02/2002)

Many respondents saw themselves as operating in several communities of practice as this type of knowledge sharing is based around issues. Issues provide a focus for exchanging best practice and cross organizational and professional/volunteer boundaries creating meaningful spaces where knowledge can be shared. There is a need to be constantly creating new spaces to support groups. There is also a need to build on good practice from other areas, perhaps, by utilising a 'buddy' system where appropriate. Such a system could work both on and offline (NCN: Workshop: 09/01/2002).

5.3.2. Learning, meaning and identity revisited

In Chapter 2, an examination was undertaken of the relationship between learning, meaning and identity in communities of practice. It is necessary to revisit this relationship to test its validity within the context of community networks.

Interviewees talked predominantly in terms of the bigger picture. The language chosen was rarely negative. This seemed to indicate that they saw their organisation's involvement in knowledge sharing activities as overwhelmingly positive, or alternatively, that the interviewees felt it better to describe such activities in very positive terms. Generally, however, they saw the community network as a learning network, forging meaning from the collective identity of the Sector.

Knowledge sharing activities are seen as overwhelmingly important in terms of their value towards improving practice. Interviewees favoured descriptions of knowledge sharing activities which related to practice improvement or Sector performance and did not tend to select descriptions which related to the interest or utility value of the activity and its learning value. On a positive level, the creation and development of community networks is collectively viewed as a major opportunity for enhanced individual and group learning, bringing meaning to new forms of practice and reinforcing and re-interpreting the identity of communities within the network (SCN Workshop: 15/10/2002; NCN Workshop: 09/01/2002; STCN Workshop: 14/10/2003).

As previously stated, community networks can often be viewed both as networks and communities of practice. Such duality can be significant in forging appropriate and effective working relationships. Functioning as a meta-network, they create a hub of activities and events and make connections between existing and emergent networks within a specific Local Authority area. Communities of practice are spawned around

issues and themes identified by the networks and grow, develop and die according to the relative significance of the issues and themes from which they originate (NCN Workshop: 09/01/2002). Some networks, however, were sceptical as to the impact of events on the learning process as many events were poorly organised and targeted with many problems associated with attracting peripheral members to these activities (NCN Workshop: 09/01/2002). Some members had begun to think of engaging peripheral members through more appropriate use of collaborative technologies prior to events which is a technique they had seen being used successfully by other communities and sectors (NCN Workshop: 14/02/2002).

It is clear that issues provide a firm basis for knowledge sharing especially if they are identified as reelvant issues by all members of a community. It is a question of knowing 'what is hot and what is not' which is not always easy to judge. There is a need to open up boundaries and create meaningful spaces where knowledge and practices can be shared by constantly creating new spaces. (NCN Workshop: 14/02/2002). There was a prevalent argument that professionals should not always occupy core space but should be pushed back to active and peripheral roles to allow volunteers to occupy the core and drive forward new ideas as this was very much within the tradition of the Third Sector (STCN Workshop: 14/10/2003).

5.3.3. Size and membership

Wenger et al. (2002: 24-25) state:

> Some communities of practice are small and intimate, involving only a few specialists, while others consist of hundreds of people...Size does matter, however, and very large communities are structured differently, usually subdivided by geographic region or by subtopic in order to encourage all members to take part actively.

Communities of practice in Sunderland, Newcastle and South Tyneside varied in terms of size due to geographical identity and the issues they were attempting to address. Sunderland had a fairly static community or practice of staff within the network which reflected the stability of staffing levels at VOICES, the core organisation of the network. Issue-based communities, in contrast, varied greatly in size depending on the importance of the issue. Active members of the network tended to average around half this with around three times the active element being on the periphery of activities.

Newcastle Community Network appeared to function as two clearly identifiable communities of practice: a strategic development community and an organisational development community with some considerable overlap of membership. (It should be noted that playing a number of roles, within the Third Sector, is an extremely common phenomenon). The strategic community of practice of Newcastle Community Network held a fairly constant level of membership at around 10 members with the organisational development community also being constant, at around twice the size of 20 members. Membership of communities within South Tyneside Community Network contrasted with those of Newcastle Community Network being organised in tightly-knit geographical communities operating on a multi-issue basis. On the other hand, STRIDE formed its own core community of practice operating on strategic and logistical issues with a rigid structure deliberately restricted to internal staff.

The topology of communities of practice, prevalent in these networks, raises the question of the relationship between homogenous and heterogeneous communities:

> Some communities are homogenous, composed of people from the same discipline or function. Others bring together people with different backgrounds...Over time people with different backgrounds may end up being as closely bonded as people who started with a lot in common.
> (Wenger et al. 2002: 25-26).

Communities under investigation exhibited facets of homogeneity, heterogeneity and also forms of social bonding which bridged both. The communities of practice observed in the Sunderland Community Network (SCN Workshops: 15/10/2002; 30/03/2004) contained a high level of Third Sector support workers. There was also involvement from community activists, project managers and project development workers. However, professional community development workers were the key drivers in all strategic and issue-based communities. There was also a visible tendency for these professionals to dominate dialogue in the various communities as they were largely responsible to the centre to fulfil the process of agenda setting, deliberation and policy formulation prior to engagement with other partners. Many volunteers expressed discontent at this as they felt they were being engineered into policy formulation rather than being involved in the organic processes of community building and knowledge

sharing they were familiar with in their own organisations. (SCN Workshop: 30/03/2004).

The membership of the two core communities in Newcastle Community Network consisted of self-selected original members and chosen representatives of key organisations: a small tightly-managed and structured community with no involvement of volunteers. This was a deliberate strategy as the core of the community believed that the early stages of community development should be led by professionals having a higher level of requisite skills and experience comparative to volunteers (NCN Workshop: 09/01/2002). Within the South Tyneside Network, community membership was tightly-focused on the skills, experience and expertise held by volunteers. Volunteers would exchange best practice with and seek support from professionals as and when appropriate. There was an internal policy, within STRIDE, to engage no more than one professional with each community. These professionals, engaged in community development had no professional background in this field. Emphasis was placed on a high level of both individual and organisational knowledge sharing (STCN Workshop: 14/10/2003).

Overall, attempts at a balance between professional and volunteer input into communities often proved difficult to achieve. In some cases, the professionals viewed the volunteers as lacking in key community development skills while the volunteers saw the professionals as lacking the personal experience of community building and knowledge sharing they possessed. There was also a division between 'newbies' and 'veterans' which was often, but not always, divided along professional versus volunteers lines. Some 'newbies' had no experience of either the professional or the voluntary elements of communities, and, while attempts were made to legitimise participation they remained isolated from detailed dialogue. Such isolation created visible divisions between insider and outsider groups.

5.3.4. Domain, community and practice

> A community of practice is a unique combination of three fundamental elements: a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain
> (Wenger et al. 2002: 27)

In this section the following will be examined:

1. The domain of knowledge in the communities of practice which defines sets of issues.
2. The communities of individuals and organisations who care sufficiently about the domain that they have desire to improve their practice by sharing knowledge.

The domain of all the community networks under observation and analysis is community development in its widest sense: the development of groups of people with a shared interest (SCN: Workshop: 15/10/2002 STCN: Workshop: 14/10/2003). The nature of this shared interest could be the formation and function of a geographical, faith-based, interest-orienteed or self-improvement community. In its received academic context, community development seeks to empower individuals and groups of people by providing these groups with the skills they need to affect change in communities. The domain of community development, however, interfaces and interjects with a number of other domains, such as, social, political, cultural and economic regeneration, Third Sector development and social service delivery. It is, therefore, often difficult for practitioners to comprehend where one domain begins and another ends. There are several questions that arise as a result of this complex relationship between domains (SCN: Workshop: 22/01/2003):

1. What level of understanding of the regeneration process does an individual need to participate effectively?
2. Can we information and knowledge be managed effectively in the community across several domains?
3. Does community development involve a process of re-defining democracy, if so, what are the implications for the various domains?

At the core of each community network is a community of practice which is facilitated by the lead organisation. It is possible to identify the domain of this community as community networking which, in turn, defines the issues involved in networking community networks, or meta-networking, for the purpose of developing further communities. The domain of this core community of practice spawns further cross-sector communities based upon the themes identified in consultation with the Local Strategic Partnership and other agencies. The community, at the core of the network, is

a network of existing and emerging community networks, as such, they collectively possess an enthusiasm for the domain that it would be difficult to identify elsewhere. Given their collective knowledge of networked organisations, it is appropriate for this community to identify key members for theme-based communities. Some members of the theme-based communities were self-selecting as they possess high levels of expertise and experience on a particular issue, such as, health and transport.

Levels of access to communities of practice are subject to the life cycle of the community, that is, whether it is short, medium or long term and the level of resources available to the parent organisation to support an appropriate level of involvement (ability to pay out-of-pocket expenses, for example, may disqualify access). The relationship between professionals and volunteers is often strained within the Sector and this can impact upon the communities' level of access. Often, organisations are widely dispersed geographically and this can also impact on community access (SCN: Workshop: 15/10/2002).

Knowledge sharing within the different facets of the community is relative to levels of trust, the willingness of individuals to share good practice and the provision of dedicated human resources to facilitate community activity (SCN: Workshop: 15/10/2002). There is a belief that communities should not pressure members to participate if they are unwilling to do so (NCN: Workshop: 09/01/2002).
The shared practice at the core is the skills needed to empower existing community networks to network with other networks and create meta-network formations. At the stage of development of this particular case study, the core communities had developed a shared practice, but, were in the early stages of identifying the most effective ways of developing a range of shared practices which would impact effectively on the domain of neighbourhood governance. Theme-based communities of practice were focused around a relatively narrow area, in comparison to the core community. As such, they developed shared practices very quickly as they were usually in detailed dialogue with other specialists prior to the formation of the community of practice.

A number of practitioners have shared experiences, over thirty years, from the early central government funded community development projects of the 1970s. Others had perspectives on community development acquired through the teaching of the Worker's Educational Association (NCN: Workshop: 09/01/2002). Many Sunderland Community

Network members had undertaken formal qualifications in community development at Sunderland University where they had been impressed by the teachings of Paulo Freire (1973) (SCN: Workshop: 15/10/2002). A number of members were also engaged in sharing and acquiring knowledge on specific issues on a regional basis, in particular, the North East Social Capital Forum, a regional group formed to analyse the impact of social capital on community development. This led some to question the role of events as platforms for individual and organisational knowledge sharing. Potentially, events could be a place where knowledge is shared in an equitable manner, although, members found it difficult to see how this could be monitored and evaluated without considerable external resources. Despite this, they all seemed clear that there would be some added value to both individuals and groups as a result of appropriate and effective event management (SCN: Workshop: 24/10/2002).

Comments from informants on the development of the core community illustrated that the self selection of organisations restricted representation, the differing approaches to community development and the role of the Community Empowerment Fund. For example:

> The range of organisations involved is not as wide as it should be. (NCN: B1)
>
> Debates have illustrated the different perspectives on approaches to community development. (SCN: A6)
>
> The future of the Community Empowerment Fund depends on understanding what it is, what it does and what's in it for communities?
> (NCN: A2)

The communities of practice under observation in this study possessed knowledge on the Third Sector and how it could impact on a range of issues in which the sector is involved, for example, health, housing and transport. The community comprises the community development workers, project managers, project development workers and volunteers that operate in the Third Sector domain. The shared practice being developed was the more appropriate and effective use of face-to-face and collaborative technologies through various activities and events to reify innovative ideas for change.

Sunderland Community Network, due to its higher proportion of professional community development workers, believed that its domain went beyond the Third Sector to the principles of community development (SCN Workshop: 15/10/2002; 14/10/2003). It is clear that this domain interfaces with the Third Sector domain prevalent in the other two networks but it was argued that it also had a key set of specific practices which were prevalent amongst community development workers, such as, the teachings of Paulo Freire (1973). In terms of community, it was considered that the communities were often inclusive and not as open to new members and change as they could have been:

> The relationship between professionals and volunteers is often strained within the sector and this can impact significantly on the communities' level of access. Also communities are often widely dispersed geographically and this can also impact on community access (SCN Workshop: 15/10/2002)

> Once a sense of community is achieved its retention is dependent on levels of trust and the openness of knowledge sharing by members of the community (SCN Workshop: 15/10/2002). Greater resources to facilitate knowledge sharing activities and events can only assist in preventing the breakdown of trust within the community (NCN Workshop: 09/01/2002).

It was evident from all the communities under observation that many members had shared practice over a number of years. In some cases, this was evident through membership of an ideologically-driven learning agency, such as, the Workers Educational Association (NCN Workshop: 09/01/2002; STCN Workshop 15/10/2002). A number of members were also regularly involved in sharing knowledge and best practice on issues, at a regional level, for example through Voluntary Organisations Network North East, the umbrella organisation for Third Sector organisations in the North East (STCN Workshop: 14/10/2003). Such knowledge would filter, through communities of practice, into meta-networks where appropriate (NCN Workshop: 09/01/2002).

5.3.5. Core-periphery relations

Practice is the source of its own boundary:

> Participants form close relationships and develop idiosyncratic ways of engaging with one another, which outsiders cannot easily enter.They have a detailed and complex understanding of their enterprise as they define it which outsiders may not share. They have developed a repertoire for which outsiders miss shared references.
> (Wenger 1998: 113)

It was significant that all members of communities were aware of the need to engage outsiders, especially those on the immediate periphery of the active area. This was seen as a key source of added value to knowledge sharing and the exchange of best practice as learning can be enabled by merging new and old practices (NCN Workshop: 09/01/2002; SCN Workshop: 26/02/2003; STCN Workshop: 14/10/2003). Lave and Wenger (1991: 29) refer to this process as 'legitimate peripheral participation':

> "Legitimate peripheral participation" provides a way to speak about the relations between newcomers and old-timers...It concerns the process by which newcomers become part of a community of practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice.

Some members, however, were critical of the effectiveness of legitimate peripheral participation. One referred to 'a constant state of capacity building where we achieve a certain capacity then all of a sudden the goal posts move; this is often as a response to a shift in central government policy' (SCN: A2)'. She heralded the strength of a mentoring process as being crucial to newcomers, or, in some cases, simply the less skilled.

Another claimed that it was questionable if sufficient was ever being done: 'it's all about being open and enabling. We are sharing the experience of what we do, how and why we do it, but, we will always wonder if this enough?' (SCN: A3). This was supported by a member of the same community (SCN A4) who saw communities engaged in a very steep learning curve which is formative, flexible and changeable. She went on to note that knowledge and information changes hands at a very rapid pace, informally and formally, across a range of platforms, some identifiable and traceable, others not. It was part of the nature of communities that the legitimacy of the core group

is always in question. However, 'we need to identify transferable core skills of the movers and shakers: the people who really make things happen' (SCN: A4).

5.3.6. Stages of Development

As identified in Chapter 2, communities of practice develop through a series of life-cycle phases (Wenger 1998; Wenger at al 2002):

1. Potential: being discovered and prepared for activity.
2. Coalescing: being initiated and incubated.
3. Maturing: focusing and expanding
4. Stewarding: creating a sustainable environment and renewing activity.
5. Legacy: letting go of their identity and reviewing the lesson learnt from their activity.

All the communities of practice under investigation exhibited evidence of being at a phase between maturing and stewarding in this model. They had developed an identity as a community and were focusing on developing common practices that are characteristic of a maturing community of practice. They also exhibited characteristics of being at a stewarding phase through their gaining of influence with other organisations and changing membership. The potential and coalescing phases of the community of practice had been undertaken as a result of the response to the Community Empowerment Fund Guidance. In particular:

1. The domain was defining the role of the core organisation while nurturing relationships with other domains.

2. The community was defining new and wider boundaries beyond networks of personal friendships and social acquaintances. Although new boundaries were being explored there was a clear understanding that it was important not to lose sight of the core purpose.

3. The practice was shifting from shared insight to a sense of community knowledge. The core was attempting to identify gaps in this community knowledge and being more systematic of core practices and their impact on activists and peripheral practitioners.

5.3.7. Culture and organisational culture

While the definition of a community of practice stated previously can be seen as relevant to the case studies under investigation, it must be viewed within the wider context of how the individuals who responded to the questionnaire and interviews saw their relationships with the cultures of their own and other organisations. Those that mentioned specific organisations as being crucial to success, such as, Newcastle Healthy City Project or STRIDE tended to demonstrate an intellectual affinity with that organisation's culture. In turn, they would tend to favour that organisation's culture over others. Those that responded with definitions matching the wider strategy of the group, for example, 'to use the fund as a tool of empowerment to bring democracy to the city' (SCN:A2), tended to be from organisations that possessed a knowledge sharing strategy and a willingness to diversify organisational culture, for example, Sunderland Community Network. In particular, these organisations were aware of the need to use the added value of collaborative technologies to enrich their existing patterns of working and to enable knowledge sharing.

Examination of each lead organisation reveals a specific organisational culture particular to that organisation. STRIDE, for example, is the lead organisation for South Tyneside Community Network which is a hierarchical organisation with a formal pyramid-style structure. It consists of a Chief Executive Officer and an Assistant Chief Executive Officer with a Finance and a Policy and Resources Officer similar to a local authority structure. Below this level are a number of workers responsible for community development although only one of these workers is qualified in community development. STRIDE sees itself as a strategic organisation for the Third Sector, similar to VOICES in Sunderland. Its values are rooted not in community development but in community-based regeneration: engaging communities in the decision-making processes of improving their environment. STRIDE maintains a website with a relatively low level of interactivity but staff members communicate with each other regularly, both formally and informally, by email, text and mobile telephone. Staff tend to view public sector organisational culture as little different from their own. As a result, they see no difficulty in appropriate cross-sector partnerships with the Local Authority as they feel they share some facets of their culture.

Newcastle Community Network, on the other hand, is a consortium of a number of first-tier Third Sector organisations in Newcastle. It is loosely federated and led formally by Newcastle Healthy City Project. Its values are rooted in empowering communities to participate directly in the process of community regeneration. The result of this focus is that the network tends to concentrate on socially excluded areas to the detriment of engagement with other, less excluded, parts of the City. The consortium uses an email list to discuss issue and themes. Online discussion often leads to the early stages of policy formulation with strategies being affirmed at face-to-face meetings. The consortium sees the organisational cultures of public sector organisations as being both wide and varied. It recognises the difficulties of working with some organisations rather than others and views the organisational culture of the Local Authority as a 'curate's egg': good and bad in parts.

VOICES, the lead organisation of Sunderland Community Network, operates as an umbrella strategic organisation for the Third Sector in Sunderland. It shares its strategy with other first-tier third sector organisations, in particular, Sunderland Council for Voluntary Service, Sunderland Social Enterprise Network, Sunderland Voluntary Sector Youth Forum and Sunderland Black and Minority Ethnic Network. ICT skills vary greatly within the first tier organisations, as a result, strategy is formulated at face-to-face meetings with final policy documents being distributed via email. The all embracing beliefs of the VOICES staff team are rooted in formal community development processes with all members being graduates and post-graduates of the community development course offered at Sunderland University. They view the organisational cultures of public sector organisations as a major source of conflict. This is a particularly true of the culture prevalent in the Local Authority.

In all cases, the relationship of communities of practice to the formal organisations from which its members were drawn was in some cases 'legitimised' (initiated by the organisation and seen as a crucial part of the organisation's culture), in others 'supported' (not initiated by the organisation but considered added value to the organisation's function) and in one case 'insititutionalised' (a recognition that such groups had always existed but were not, necessarily called communities of practice).

Newcastle Healthy City Project sees its relationship with its various communities of practice legitimised as a valuable entity within the organisation's structure and

development. Such groups are given broad visibility within the organisation and there is a high expectation of rapid growth. As a result of such legitimacy, a high level of demands and expectations are generated within the organisation. This high level of expectation was often frustrated by partners in other sectors, in particular, the public sector. The public sector is viewed as experiencing specific problems with the concept of knowledge sharing in communities of practice due to the 'pillarisation' of service delivery and the rigidity of formal line management structures. A number of organisations, for example Newcastle Tenants' Federation, are eager to support their representative's role within communities of practice and provided them with access to a high level of resources which enables them to function effectively within communities. Such organisations, however, tended to subject their representatives to a higher level of scrutiny and accountability for their effort and time. Such scrutiny resulted in short-term pressures that affected long-term involvement in the community.

Councils for Voluntary Service, acting on the periphery of the community network, can be seen as the type of organisation that offers official status and function to communities of practice, as such, they are institutionalised within the organisation's culture. At first, this may appear advantageous, but, in the long-term problems arise due to three key factors:

1. Working to a fixed definition of a role, within a community of practice, affects the flexibility of change, both rapid and slow, which is a key characteristic of communities of practice. Normally changes from one phase to the next are rapid and seamless. If a representative is in a constant process of minute feedback this may frustrate more flexible members.

2. Over-management, by the organisation, of the organisation's relationship with the community of practice again constrains the fluidity of development of the group. Individuals, in communities are exchanging practice which should impact upon organisational culture. Organisational culture should not be directly influencing an individual's role within a community.

3. There is tendency to continue to support the group long after its usefulness. Almost all communities of practice were time-limited to a specific theme and

often they failed to realise that they had reached the end of their life expectancy, continuing to meet primarily for social reasons.

The Councils for Voluntary Service's role within the various communities of practice exhibited the first two characteristics. Often the community of practice's stage of development made it difficult to forecast whether or not a particular organisation would have demonstrated the third characteristic.

Several of the informants saw the role of the Councils for Voluntary Service as problematic due to a similar pillarisation and line management structure to the Local Authority. The following comment exemplifies this viewpoint:

> The community now compares favourably with other Community Empowerment Fund areas. This would not have been so if it was led by the Council for Voluntary Service. (NCN: B5)

In contrast, however, some were supportive of the role of Councils for Voluntary Service:

> The early work done by Newcastle Council for Voluntary Service was highly effective and focused. However, I feel that the original Steering Group strayed off track once it took over, and spent some time 'reinventing the wheel'. (NCN: B2)

However, this may only be the case in Newcastle where a significant power struggle took place between Newcastle Healthy City Project and Newcastle Council for Voluntary Service for control of the Community Empowerment funding package.

5.3.8. Community space

As noted earlier, the Japanese term 'Ba' is roughly translated as 'space' in English. It describes the shared physical, virtual or mental space for relationship interaction and ultimately forms a platform for knowledge sharing (Nonanka & Konno 1998; Nonaka et al 2000). It is a concept that can be useful for interpreting community use of space for knowledge sharing.

The core groups within all the communities of practice were clear, from the outset, that face-to-face meetings would provide the Ba where the communities of practice would develop common practices and shared mental models. As a result, external and internal documents and email which were potentially formulated in this space played a very specific role in the development of the group and the processes it would use for impacting upon the formal decision-making process of the Local Strategic Partnership. Documentation produced in this space was seen as legitimised by community members. Of the spaces where the creation, codification and transfer of appropriate knowledge took place, face-to-face meetings of the communities also provided the focus at which discussion of the content of external documents, emails from external partners and informal discussions on strategy were aired in an open exchange between members of the group.

Attendance at meetings of communities of practice was mixed and rarely did the same participants appear regularly other than the originators of the community who tended to dominate the discussions. The originators, however, demonstrated a number of key characteristics of effective membership of a community of practice. For example, in one community, the Chief Executive of a City-wide voluntary organisation, was used to a clear co-ordination role within communities working collaboratively suggesting the need for a key figure as facilitator of meetings. The second, a specialist in community development, demonstrated a sound understanding of the principles of that issue and was viewed, respectfully, as a trustworthy source of knowledge. Finally, the third, a Doctor of Politics, had a detailed understanding of political and governmental systems and structures and was viewed as a source of knowledge on the wider governance issues within which the communities were operating.

Traditional community spaces, such as community centres and libraries, tended to be well used as they were accessible via various modes of transport. The more traditional members of the sector and those who lacked online communication resources tended to favour this familiar environment both for formal and informal knowledge sharing. Communication between core, active and peripheral levels of community space is progressed through these traditional meetings with community development workers tending to provide appropriate online communication with the staff team at the centre. There were a number of long term activists which dominated area-based communities forming a tightly-knit core. There was little evidence of migration from face-to-face

networking to electronic networking in these, often peripheral communities. They also tended to see issues and themes as specific to their own geographical area.

Most communities saw public sector organisations, especially Local Authorities as less reliant on traditional community space than themselves. There were a number of expressions of the viewpoint that Local Authority representatives felt threatened by being in community space. As a result, a number of the communities were frequently engaged in infiltrating public sector organisations space (Civic Centres and Town Halls) to emphasise the significance of traditional community use of these spaces. They see community space in public service organisations as accessible to them and a facet of these organisations with which they should engage. Some Local Authorities were more comfortable with this than others and feelings were not relative to how these authorities viewed the network. They were often subject to complex booking procedures and relatively high costs of hiring.

Communities of practice did not occupy any one traditional physical community space on a regular basis. Meetings and events were organised on a peripatetic basis with the result that events tend not to attract a regular core of a community. The core of each community tended to consist of the founder members of the community plus a small number of key community development workers who supported their activities as representatives of the lead organisation. Activists tended to be constantly changing within spaces depending on the issues and themes which were currently emergent. Several attempts were made to utilise the community network websites to keep all occupants of the community space informed, however, this has not proved successful despite a number of redesigns of the site.

The core group of Sunderland Community Network consisted of approximately 15-20 individuals from VOICES, first-tier organisations and a number of long-term activists. The activists were largely workers with a long history of working in Third Sector development and they form a bridge between the core and active levels. There is significant email exchange at this level as all its members are proven, effective face-to-face networkers. The peripheral members in the community space are conscious of being at the outer edge of a space which is complex and constantly changing, hence, they find it difficult to find any communication system satisfactory for keeping them totally informed. Public sector organisations are viewed as being tightly controlled by a

tightly-managed core space with little or no scope for the manipulation of liminal space between organisations.

5.3.9. Individual and organisational learning

The situationist theory of individual learning is the theory of learning favoured by this study (Lave 1988; Lave & Wenger 1991; Wenger 1998; Wenger 2000; Wenger et al 2002). It suggests that all learning is contextual, embedded in a social and physical environment. Lave and Wenger assert that situated learning 'is not an educational form, much less a pedagogical strategy' (1991: 40).

Checkland's (1981) widely-applied soft systems methodology approach exemplifies the process of situated learning. At the heart of this methodology is the reification of rich pictures. A rich picture, according to Checkland, is an attempt to create a visual representation of a problem within a whole system. Rich pictures build conceptual models of organisational problems to enhance understanding and problem solving. Individuals learn not only as individuals but also as members of groups and organisations.

All the communities of this study engaged in some form of rich picture building, although they were largely unfamiliar with the concept of soft systems methodology. Newcastle Healthy City Project, however, is a pioneer of Whole Systems Theory in the region. Whole Systems assists in design processes for leading and managing change and recognises the synergistic qualities, opportunities and dynamics inherent in systems. This theory has a clear affinity with Checkland's view of soft rather than hard systems analysis.

As lead organisation, Newcastle Healthy City Project organised a one-day whole systems event to introduce members of the network and the various communities of practice to the concept with international guest speakers to demonstrate the global application of the theory. Sunderland's VOICES were continually applying a combination of rich picture building and whole systems theory by organising away-days over a two to three day period where members exchanged knowledge on their perceptions of where they were located in the constellation of communities and partnerships in which they were involved. The tools used for conceptualising this included both picture drawing and model building. STRIDE organised six-monthly one

day events at a local hotel where knowledge was exchanged on the 'big picture'. The theme-based communities of practice were given the opportunity to share their knowledge and experience of best practice with a wider audience that did not, necessarily, specialise in the area. These events were specifically entitled 'schools' and were further entitled by seasons, Spring, Summer, Autumn and Winter.

Wenger's (1998) theory of organisational learning starts with the assumption that engagement in social practice is the fundamental process by which we get to know what we know and by which we become who we are (Tennant 1997). This, in turn, impacts on organisational performance. Wenger uses the community of practice as his primary unit of analysis of this process. It is neither the individual nor social institutions, but the informal relationships that people form as they pursue shared enterprises over time which shapes the learning process. In providing a social context for learning, the theory explores in a systematic way the intersection of issues of community, social practice, meaning, and identity. There was evidence in all the cases under investigation of this informal learning cycle which took place on an individual level initially and would then impact on organisational change, for example:

> There is a lot of evidence of people building on existing capacity for group learning which they have experienced in their individual organisations. People are presenting themselves as sources of knowledge very effectively. The process of learning is about accumulating knowledge and creating new meaning from shared experience (SCN: A11).

> What, I think, we are aiming to achieve is some form of group learning across and within communities. We need to be able to share individual knowledge between organizations and organisational knowledge with individuals. The effectiveness of this needs an independent assessment working to a tightly-defined brief. (NCN: B1).

> Key skills and experience are acquired in terms of communicating, organising and project development as well as by specific group learning events. Seasonal schools are a good example of informal learning practices but we need to monitor and evaluate their performance more closely. We are clearly engaged in a process of learning by doing. (STCN: C7)

Some eighteen months after the introduction of the Community Empowerment Fund Guidance, central government issued guidelines on drawing up learning plans for the community networks. This learning plan contains details of individual and organisational learning requirements and the relationship between them. Full-time learning co-ordinators were engaged in drawing up personal learning plans for community members and interfacing these plans with organisational learning to facilitate change. A key player in this exercise was the regional Learning and Skills Council who acted quickly to bring together a community of practice of community network Learning Plan Co-ordinators. This community was facilitated by the office in the Learning and Skills Council responsible for Third Sector development.

Communities of practice in community networks are directly engaged in making sense of their role within the Local Strategic Partnership. They are required to provide issue-based knowledge and share this with other partners while building knowledge of the new procedures and processes in which they are engaged. This then leads to a decision-making process in which appropriate knowledge can be exchanged. Creating a balance between individual and organisational learning is crucial to this role as a learning organisation. Powerful social binds and bridges need to be built in an environment of trust. This is referred to as social capital. The more powerful the degree of social capital is within an organisation, the greater is its capacity for collective learning and knowledge sharing. Creating such bonds provides a platform for collective learning which is difficult to monitor and evaluate. All the community networks were working in this area. Some more successfully than others:

> I think we are sharing knowledge collectively but a lot of the knowledge shared is of a 'surface' nature, that is, on a practical level, lacking insightfulness into the nature of processes and the organisations we are working with. We are exchanging a lot of detailed information on who does what, where and when rather than gathering knowledge and intelligence on why knowledge sharing is structured in organisations and partnerships (SCN: A1).

> In the wider communities, collective knowledge depends on individuals willingness to share knowledge with others. This process is affected by confidence as levels vary. Training needs to reinforce the need to share knowledge as an asset; an intellectual asset which is as important as other assets (STCN: C2).

> Group learning involves identifying how your own skills and learning differ from those of others. Learning takes place at different levels; the higher the level the more difficult it is to understand what needs to be learned. There is a lot of evidence of people building upon existing capacity for learning. (NCN: B5)

A strong theme in the literature on organisational learning is the weakness of the learning systems involved (Huysman 2000). The learning of the collective suffers from a startling range of limitations (Allee 1997). Some of these are equally characteristic of solo and collective learning entities (Davenport & Prusak 1998). For instance, rare, socially constructed events, such as, marriage decisions in an individual or major shifts of direction in an organisation, are difficult learning processes because they do not occur often and by the time they occur again circumstances may have changed substantially (Berger & Luckman 1966). Evidence of this constantly changing nature of individuals and organisations was evident in all cases:

> The community network is organic and the communities of practice which flow from it should reflect this. We are constantly changing, emerging and reforming. (STCN: C1).

> We are constantly exploring the relationship between skills, knowledge and experience with a view to creating a knowledge base that can be shared between key players. We need to explore the development of new networks beyond the community network. (NCN: B4)

5.3.10. Victims of groupthink?

If we follow the Janis (1972) model of groupthink, the communities, under observation, not only demonstrate the characteristics of an in-group, as follows:

1. No two members are alike, but all members have something in common.
2. Members know each other by name.
3. The group's strength is in its diversity.
4. Members are interesting people.
5. Members enjoy being with each other.
6. Our group is superior to other groups.
7. We're superior to members of other groups.

But also, show characteristics of the associated out-groups:

1. Members seem to be all the same.
2. We define them stereotypically, not as individuals.
3. They're different from us.
4. We have little in common with them.
5. We do not enjoy being with them.
6. Their group is inferior to ours.
7. Their members are inferior to us.

The complexity of this area of investigation suggests a need for in-depth case studies of group and community-building behaviour. Such studies could be of co-located, dispersed or varied communities (those that choose to operate as both co-located and dispersed). These studies could also examine, in greater detail, the significance of both 'liminal' space, the reproduction of space, defensible space, 'the space of flows' and the semiotics of global space to communities of practice.

This investigation has suggested a number of strategies, which can be deployed in order to prevent groupthink. Below is a list of strategies, deployed by the communities, to avoid groupthink, which is by no means exhaustive:

1. Establish an 'open' climate within the group. Welcome diversity, innovation and the embrace the pedagogy of trust. This was true of Sunderland, but, less manifest in South Tyneside. Newcastle had an in-group and a series of out-groups from the outset.

2. Avoid the isolation of the group. Particularly from those groups which are critical of it. Sunderland tended to isolate its groups from critics while South Tyneside's communities appeared to be criticised little by out-groups. Newcastle demonstrated a mixture of avoiding isolation and promoting isolation dependent on the group.

3. Assign the role of critical evaluator to an experienced and skilled member of the group. All communities exhibited this characteristic with core communities recognising this role as the responsibility of the Chief Executive of the lead organisation. In the theme-based communities, the facilitation role fell to the individual or organisation with the highest level of skills and experience on a particular issue.

4. Avoid being too directive or prescriptive in terms of the development of the group. The Newcastle core community appeared to be over-prescriptive in the development of theme-based communities. This contrasted sharply with South Tyneside where theme-based communities were generally self-selecting due to the recognition that there was a low level of expertise on a range of issues. Sunderland core community consulted widely and in detail on the composition of the theme-based communities but were often criticised for over-riding some suggestions for improvement.

5. The group leader should avoid expressing their personal views too early in the decision-making process. This is true of all the core communities but not so true of the theme-based communities in all cases. The core communities were constantly striving to show a high level of participatory democracy which would over-ride personal views. On the other hand, there was a tendency for a number of the theme-based groups to be dominated by personal views on issues which impacted on a collective viewpoint.

6. The group leader should encourage group members to challenge and push each other for the purpose of enhancing each others' critical thinking. This varied greatly in all communities and was dependent upon the group leader's facilitation skills. In the core communities, leaders tended to be high-level facilitators while, in the theme-based groups, low-level facilitation skills tended to be exhibited. In all cases, however, where low-level skills were present they were supported by community development workers from the core community.

5.4. Summary of main points

The context of meta-governance is important to understand if knowledge sharing is to be analysed appropriately and effectively. A model of meta-governance shows how the four main types of governance in the North East intersect and illustrate the roles of governance fulfilled by central government, regional government, local authorities, and community networks. It is significant that the position within the framework of individuals and groups defined their attitudes towards how meta-governance functions which has implications for cross-sector partnerships.

Membership of communities varies between professionals, semi-professionals, volunteers and those simply interested in a particular issue. A number of communities demonstrate a varied mixture of these elements. However, in mixed communities, there is a tendency for volunteers to feel peripheral to the core activity of the community. There is some evidence that there is a move towards volunteer communities being supported by professionals. Where this occurs there is a tendency for volunteers to feel directed, rather than facilitated, by professionals. Facilitation skills are identified as a significant area for training. Membership is also constrained by the level of personal resources, such as time, education and interpersonal skills, needed to commit to a community.

Community network members were aware of the bigger picture of which they formed a part. The language chosen to expressive was usually highly positive. Organisational involvement in knowledge sharing activities appears positive unless respondents felt a need to describe such activities in very positive terms. Generally, the community network is viewed as a learning network.

Communities of practice in all community networks varied in terms of size due to geographical identity and the issues they were attempting to address. The common domain was that of community development in its widest sense: the development of a shared interest in building progressive communities. In terms of core-periphery relationships, all members of communities were aware of the need to engage outsiders and utilise their potential knowledge. All communities were operating at a level between the maturing and stewarding phases.

Organisational culture varied between the lead organisations with STRIDE demonstrating the greatest proximity to local authority culture with VOICES attempted to distant its won culture from that of the local authority. Newcastle Healthy City Project adopted a holistic approach to cultural development receiving and rejecting elements of other organisational cultures as appropriate.

Core communities of practice were clear that face-to-face meetings would provide the space where the communities of practice would develop common practices and shared mental models. All communities were engaged in rich picture building and the

development of holistic systems which also increased their awareness of the need to develop systems to avoid groupthink.

6. Exploring the architecture of knowledge sharing: networking and collaborative technologies

6.1. Introduction

This chapter continues the process begun in the previous chapter of analysing the political, social, economic and cultural context of knowledge sharing, evaluating the interaction between communities of practice and social networks as knowledge sharing platforms and mapping the relationship between face-to-face dialogue and the use of collaborative technologies in knowledge sharing.

Where chapter 5 focused on knowledge sharing in communities of practice, this chapter looks at the subject as it pertains to social networks. It looks particularly at the architecture of knowledge sharing as a means of mapping knowledge transfer, how social networks enable this transfer and how collaborative technologies are utilised to gather, store and disseminate knowledge. A working model of knowledge sharing architecture is provided and to aid the analysis of the role of collaborative technologies use is made of the AC3 (Access, Connectivity, Competence and Content) principle of community networking identified in a network analysis of Newcastle City Council's community strategy (Walker 1997, 2002). The Johari Window (Luft & Ingham 1955) is utilised to understand the relationship between face-to-face and computer-mediated communications and a knowledge ecology cluster matrix, derived from Brown and Duguid (2000), is applied to the research sample.

6.2. Knowledge sharing architecture

Knowledge sharing architecture is a term used in this study to describe the emergent and transformative relationships between social networks and communities of practice which are mediated by collaborative technologies. The concept is drawn from the theories of Wenger (1998; 2000) and Wenger et al. (2002) on communities of practice, Kelly's (1994;1998) theories of network swarming, Lefebrve's (1991) theory of the reproduction of space and Hofstede's (1991) theory of organisational culture. As such, it attempts to align critical theory with essential case-based evidence drawn from real-life phenomena.

Figure 6.1 (below) shows the nature of knowledge sharing architecture in a community network. This figure shows potential clusters of knowledge operating within the meta-network of a community network. The networks are different sizes and some have two-way communication systems while others only have single feedback systems. Some have two-way relationships within a meta-network, others a singular system of feedback while others appear to have no feedback loop. The theme-based communities of practice exhibit similar patterns of feedback to the networks. Collaborative technologies are deployed to support and exploit the knowledge contained within various nodes and flowing along the many channels of the meta-network.

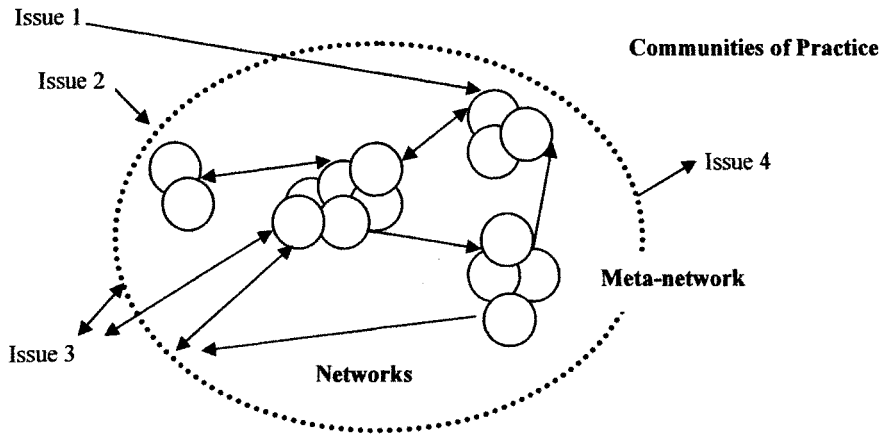


Figure 6.1: Knowledge sharing architecture in a community network

(Note: Examples of Issues –
Issue 1 = Transport; Issue 2 = Ethnic Minorities; Issue 3 = Disability; Issue 4 = Health)

Levels of usage of communities of practice, networks and technologies varied greatly between the three case studies. Each community network formed its own knowledge sharing architecture from which a number of theme-based communities of practice emanated. Relationships between networks and communities of practice were dependent upon a number of factors within the individual knowledge sharing architecture whilw collaborative iechnologies were deployed via a range of platforms. These relationships were identified during the fieldwork and are listed below.

In terms of communities of practice, the complexity of the architecture is dependent upon:

1. The operational size of communities of practice.

2. The origins of community membership.
3. The domain of best practice.
4. The active community.
5. The nature of practice.
6. The stage of development of the community of practice.
7. The accommodation of legitimate peripheral participation.
8. The level of community cohesion.
9. A shared vision of a community network.

Network architectures are dependent upon:

1. The perceived purpose of the meta-network.
2. The method of entry into networks and the meta-network.
3. Forms of systems feedback.
4. The perceived level of effectiveness of the network.
5. Levels of informal communication.
6. Levels of participation in the network.
7. Reasons for personal involvement.

The above architectures are complimented by the use of the following collaborative technologies:

1. Internet.
2. Email.
3. Mobile telephone.
4. Text messaging.

6.3. How is knowledge sharing enabled in Third Sector social networks?

6.3.1. Networks, social networks and meta-networks

Individuals, groups and organisations operate in complex social formations which are referred to as networks. One of the most powerful of these networks is a social network. A social network is a powerful network because it tends to be built upon reciprocity and trust and is established through strong dyadic relationships over a protracted period of time (Putnam 2000). Most individuals, groups and organisations rely upon these social networks for knowledge and know precisely when and where to access specific points in the network. Social networks overlap, intercede and spawn other social networks to create a complex topology that is best described as a meta-network, a network of

networks.

All of the case studies under investigation formed part of not only social networks but were also operating in a meta-networking environment largely created by the meta-governance context in which they were working. While it is important to map the terrain of such networks, attempts to identify their existence can prove difficult due to several key factors which were identified during interviews and confirmed at the member checking focus groups:

1. people appear to be relatively poor at estimating their number of contacts reliably. Although they may have contact lists, they rarely rate these lists in terms of the significance of the contact as, intuitively, they tend to know who to contact on a particular issue;

2. techniques to overcome this difficulty (such as keeping records of contacts over a period of time and weighting their significance) can be both time-consuming and labour intensive. Furthermore, individuals build personal databases of contacts which go beyond their role in the organisation in order, for example, to progress career paths more successfully;

3. as a result of people 'moving on', changing roles and personal disputes, the number and nature of contact changes exponentially over time;

4. personal definitions of meaningful contacts are highly subjective and names of contacts, passed from node to node within the network are, in turn, subject to individual scrutiny which tends to result in some meaningful contacts being discarded.

South Tyneside Community Network can be viewed as a meta-network consisting of a series of tightly-knit geographical networks and a single issue-based network based on community health. This is illustrative of the tendency of community networks to be dispersed both geographically and thematically. In this meta-network members tend not to have access to collaborative technologies and generally exhibit a low level of skills for their appropriate operation. As a result of this low level use of collaborative technologies among members, face-to-face meetings tend to be frequent, well-attended and exhibit a wide and varied level of discussion on both neighbourhood and thematic

issues. STRIDE forms the hub of the meta-network and attempts to reflect dialogue in regular newsletters which are shared with other sectors. In terms of knowledge sharing, and, given the low level use of collaborative technologies, this method is seen as the most appropriate and effective means of keeping everyone 'in the loop'.

Regular, face-to-face, network events are considered as platforms for network learning and tend to be organised on a modular basis around professionally-facilitated workshops with some designated breaks for informal knowledge sharing. It is interesting to observe that South Tyneside Community Network viewed public sector organisations networks, such as Local Authority networks, as more effective than their own and, in some ways, sought to emulate them. There is some evidence to suggest that admiration of the Local Authority was a result of the number of Councillors who regularly attended both neighbourhood meetings and events.

The meta-network exhibited a number of loose ties between its different geographical and thematic elements. This loose federation resulted in varied levels of connectedness between networks within communities and some communities felt more empowered than others. Some networks even referred to a lack of a fully-functioning meta-network and this allowed individuals and organisations to form their own appropriate weak and strong ties, which, in turn, lead to the formation of other networks beyond the community network itself.

The frequency of meetings resulted in significant peripheral online and offline activity which had considerable potential to result in new, emergent networks within the meta-network which were beyond the normal forms of access. The role of STRIDE's community development workers was to create connections between these existing and emergent networks and tie them into the community network on either a geographical or a thematic basis. Due to the frequency of meetings and the varied levels of access to collaborative technologies plus the lack of ability to manipulate collaborative technologies such connections were often tenuous and failed to result in long-term community network development. On the other hand, the core group of the community network recognised the existence of constantly emergent networks in public service organisations. They viewed these networks as accessible to them and a source of intelligence gathering but felt they were subject to restricted access.

The meta-network which forms Sunderland Community Development Network forms alliances and partnerships at various levels. The traditional way of analysing how these alliances are formed is to divide the network into core, active and peripheral levels as in Figure 6.2 below. However in terms of this meta-network, such false division is further compounded by individuals and groups occupying core space (Fixed). Alternatively, some individuals and groups occupy several spaces simultaneously (Variable). Finally, some individuals and groups constantly occupy what is referred to as 'liminal' space, the space between spaces. These individuals and groups very quickly become isolated from the network and fail to see its purpose (Transactional). Effective networks should allow for the creation of a 'chaordic commons', a balance between chaos and order in the network. This means that some parts of the network are deliberately 'formalised' while others are deliberately 'informal'.

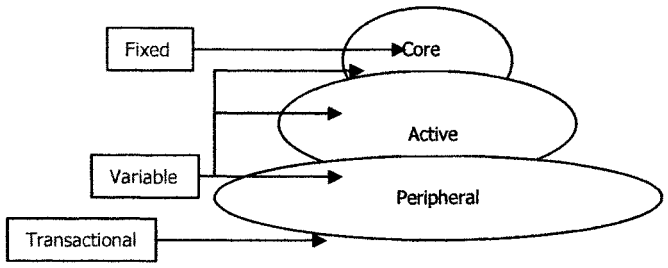


Figure 6.2: A community network defined by space

VOICES, as the lead organisation for the community network in Sunderland, co-ordinates and facilitates online and offline discussions on the network as a meta-network of a range of thematic and geographic networks. This meta-network is difficult to manage at its current size of approximately 250 member organisations with not all having access to collaborative technologies. In an attempt to overcome the disparate use of collaborative technologies, it utilises a combination of face-to-face and computer-mediated platforms for the dissemination of knowledge to networks. Interviews showed that due to the variation in skill levels there is evidence of high levels of alienation in parts of the meta-network and amongst the thematic and geographically dispersed networks. VOICES attempted to overcome this alienation through staging regular, large face-to-face events for all community network members. However, community network members seemed particularly critical of network events being organised simply as 'information exchanges' or 'networking opportunities'. The following is representative

of some of the comments made:

> Exchange of information is not enough, in itself, to make the network more effective. There is a lack of credibility in the Third Sector to act effectively when engaging with other sectors and particularly the Local Authority. There is too much knowledge trapped in key roles in the network. Irregular or non-attendance at meetings is a critical problem. The Sector is being overcome by the profound changes that are occurring. (SCN: A2)

Network members would prefer to see events organised as practitioner workshops around significant themes. They felt that particular attention needs to be paid to:

1. Who runs these workshops?
2. Where they take place?
3. How often they take place?
4. How they relate to the wider network?
5. What is the impact on existing or developing alliances and partnerships?
6. What key skills are needed to drive meta-networks forward?

(SCN Workshop: 30/03/2004)

In contrast to South Tyneside Community Network, VOICES considered public sector organisations not to be as effective networkers as themselves. They tend to see these organisations as pillarised and insular and not suitable for the constellation of cross-sector affiliations and partnerships which are prevalent. In terms of the community network, operating as a meta-network, it provides a range of informal, supported and structured knowledge sharing platforms through which dialogue on geographic and thematic issues can flow both formally and informally. These platforms include formal strategy meetings, informal lunches, events and residential conferences and seminars as well as sharing documents and discussion via email. Key informants constantly refer to the informal dialogue, which takes place before, after and around meetings. This informal sharing of knowledge is seen to lie at the hub of the collective learning which takes place within the network. Access to knowledge is sought in a seamless way by combining face-to-face informality with document sharing and the use of email and Internet and is grounded in the both the individual and collective needs of the members. A high level of trust is placed upon individuals with key skills and competencies, within

the meta-network, as containers and carriers of knowledge on neighbourhood renewal.

Newcastle Healthy City Project was the originator of Newcastle Community Network. When the Community Empowerment Fund Steering Group came together in October 2001, its primary function had been identified as delivering the concept of community empowerment referenced in the Community Empowerment Fund Guidance. What had been brought together, however, was a loose association of individuals who had a collective interest in community networking and ensuring that these networks impacted upon the processes of governance. As such, it is possible to refer to them as a community network in their own right. As a community network, they would make specific use of other networks and technologies for progressing the underlying principles of the group and the guidance. A duality of purpose, within the group, was evident from the start and manifested itself as an ongoing discussion on the relationship between building capacity within community networks and the creation of a new infrastructure of meta-governance for these networks. This discussion was intensified by the debate on the shape and form of regional government for the North East which was taking place in a multitude of Local Authorities in the North East Assembly.

Many Local Authorities looked to traditional Council for Voluntary Services, with well-established links to organisations within the Third Sector, to adapt to this new role. In Newcastle, a small number of organisations, namely, Newcastle Healthy City Project, Newcastle Environment Forum, Newcastle Disability Forum and Healthworks very quickly expressed concern over Newcastle Council for Voluntary Service taking a lead role in this initiative. They felt that Newcastle Council for Voluntary Service had links with a restricted section of Third Sector organisations in the City which would hinder the development of new community networks whilst frustrating existing community networks in attempts to create new forms of community and governance.

Newcastle Environment Forum played a key role in the early stages of the alternative governance structure to that offered by Newcastle Council for Voluntary Service. One member of the Newcastle Environment Forum was the first to hear of the publication of the Community Empowerment Fund guidance and to realise its significance as an opportunity to create what was to be termed a new network of community networks. This Newcastle Environment Forum member emailed the Chief Executive of Newcastle Healthy City Project highlighting the opportunity offered by the guidance and his

concerns over Newcastle Council for Voluntary Service's ability to realise the guidance's potential. Representatives of the Newcastle Environment Forum and Newcastle Healthy City Project met with a senior officer of Government Office North East to express their concerns. Government Office North East had little or no objection to an alternative structure and suggested that discussions take place with Newcastle Council for Voluntary Service to seek out an alternative which would deliver the vision of community empowerment embodied in the guidance.

6.3.2. Strength of weak ties

The sociologist Mark Granovetter (1973) undertook some research in Boston, Massachusetts during the 1970s in areas of high unemployment. He discovered that those who were most successful at gaining employment were not those who used friends and relatives for employment opportunities but were the people who could find out who knew who within networks. This phenomenon has come to be known as 'The Strength of Weak Ties'. During the 1960s, however, the anthropologists, Barnes (1969) and Clyde Mitchell (1969) had hinted at such tendencies in their ethnographic studies. Nevertheless, it is a phenomenon which is very familiar in the 21st century where managers rely heavily on social networks. A key characteristic of such networks is that key players have relatively few key contacts but use them, in combination with various technologies, to successfully access others for knowledge.

Most of the community network members in this study considered the use of weak ties in the network to be very passive. However, some though that some individuals were actively involved in manipulating the levels of participation to meet their own personal career needs. However, some think that some individuals are actively involved in manipulating the levels of participation to meet their own personal career needs. Others considered this both acceptable and inevitable. A small number of members believed that the strength of weak ties in the network and across partnerships was high, but, the number of individuals taking advantage of this phenomenon is relatively small. There appeared to a sense of a high level of comfort and trust and a willingness to share knowledge which spread across the ties of the network at all levels through strong, weak and medium ties. Others considered the network as not inclusive enough and dominated by professionals and this caused a division between those who had strong access to network ties while others were excluded from these ties. All members were strong willed and committed to their organisations, and as a result, they tended to have a desire

to manipulate all network ties effectively but they are often frustrated by the high proportion of hidden agendas among partners. To counteract this effect, members expressed the view that informal contact between network ties is better for greater expression and progress.

The number of workable ties in the network appeared to be higher than if the meta-network did not exist but some individuals felt that someone was always a step ahead of them. Some members felt more confident to discuss issues outside meetings if they were unclear about issues and this included creating ad hoc, informal ties with new colleagues. On the other hand, some members appeared to become more confident in meetings and this created patterns of network ties to a particular person. They were viewed as knowledgeable and high in skills and experience. Many thought ties were in a constant state of flux and were developing as new axial structures emerged. In some cases, the network was only twelve months into the project and there was a feeling expressed that there was a need to reflect on levels of participation over a longer time. It appeared that levels of participation were relative to the stage of development of the network. There was genuine dedication and enthusiasm for progressing the issues but this was not always reflected in levels of participation. Most people were involved in many other activities.

There was a real understanding of the key issues. The active members of the network were committed to the process and made strong contributions at the meetings. A smaller number extended that commitment and involvement outside the meetings by strengthening weak ties. There were varied levels of experience which impact on confidence and participation levels but appeared to be overridden by the constantly changing ties within the network. Levels of familiarity varied: where there was a high degree of familiarity there was a lack of jargon. Overall, there was a high level of confidence in the individual ability of members.

On the other hand, people frequently felt that they do not have their say in meetings as they were restricted by the formal agenda so they sought to form strong and weak ties outside the meetings. Outside of meetings it is difficult to manage workload to free up time to take the necessary follow up action. There was a number of relatively passive members; some appeared more enthusiastic than others. Some seemed to be unsure how

they should contribute as they appeared to be overwhelmed by the skills and experience of more experienced core members.

It is too early to estimate whether or not levels of participation are likely to improve, particularly when central government agendas change, new partnerships are formed and levels of staff turnover vary. Inside the core group of the network tasks have been shared equally and ties are strong within the core group where there is similar level of skills and experience. Outside the core group ties vary between workers and volunteers. Also, the high turnover of individual members clearly impacts on the level of participation.

6.3.3. Degrees of separation

One way of accessing knowledge within networks is through the use of a principle referred to as degrees of separation, that is, someone you know knows someone else and so on. In a short space of time you have built a personalised social network which reaches around the globe.

Virtually all members were aware of this 'small world' theory as it has passed into popular culture through mass media. The significance of being in a small world to most was that someone, somewhere could offer access to the knowledge they required. On the other hand, most were also aware that some individuals were more competent in manipulating these small worlds than others and once powerful contacts were made there is a tendency to keep them to oneself. As a result, there was an element of exclusivity to knowledge sharing in some small worlds.

6.3.4. Knowledge clusters

Does the geographical homogeneity of the North East of England provide the Third Sector with a relative advantage in knowledge sharing? If so, does this homogeneity impact upon economic and social activity and to what level?

At the beginning of the twentieth century the economist Alfred Marshall (1916) noted that the industrial revolution had 'clustered' manufacturing activity in certain geographical areas due to the skills, knowledge and experience of artisans and managers. In the North East, during the period of industrialisation, a number of industries blossomed on Tyneside (armaments), Wearside (shipbuilding) and Teesside

(petro-chemicals). Despite the decline of these industries, during the 20th century, social formations of knowledge sharing through geographical centres had originated. The significance of the social patterns of knowledge sharing, when they intercede with geographic and economic factors, was also emphasised by Saxenian (1994) in her studies of Silicon Valley. She highlighted that the success of Silicon Valley was not only its geographic and economic homogeneity but also the social homogeneity of the knowledge workers in the industries. They created complex knowledge sharing formations based upon bars, restaurants and other places of social gathering. This created a climate of informality in which creativity and innovation could blossom. Such theory is also supported by Orr (1996) in his ethnographic study of photocopier repairers.

As the North East of England shares geographic homogeneity, economic history and social interaction is it possible to suggest that there is a similar basis for knowledge sharing as that suggested by Marshall (1916) and Saxenian (1994)?

People in the North East of England are often keen to show that they are part of some sort of unified cultural experience and have high levels of social interaction. If this applies generally, then it is reasonable to expect that it should apply equally to the Third Sector. As are result, significant clusters of knowledge should be apparent where 'sticky' and 'leaky' knowledge occur:

> ...the same knowledge that would clot within a firm would nonetheless haemorrhage out. Knowledge that appeared 'sticky' to some was 'leaky' to others. So sticky and leaky knowledge were not always separate kinds of knowledge. (Brown & Duguid 2000: 150)

The correct conditions for knowledge clustering, however, would appear to promote the creation of sticky and leaky knowledge. These conditions of creation are often referred to as knowledge ecologies. They are fertile areas of growth because they make knowledge flow more easily. Knowledge sticks but also leaks at a high rate. Innovation and invention develop together and are 'turbocharged by feedback loops' (Brown & Duguid 2000: 161). In an attempt to map the existence of knowledge clusters Brown and Duguid (2000) derived a model from Marshall (1916) and Alpert (1985), which attempts to create a graphical representation of the existence of knowledge clusters.

Coincidentally, similar studies have been undertaken of the growth of Hollywood and a range of global media industries (Olson 1999; Miller et al. 2001).

Figure 6.3 (below) shows where dialogue takes place and knowledge is clustered between networks and organisations in the case of Sunderland Community Network and its lead organisation VOICES. Dialogue takes place on face-to-face, electronic and analogue platforms within this matrix. It illustrates the level of dialogue between VOICES, as an organisation, and other networks, which is contrasted by the limited

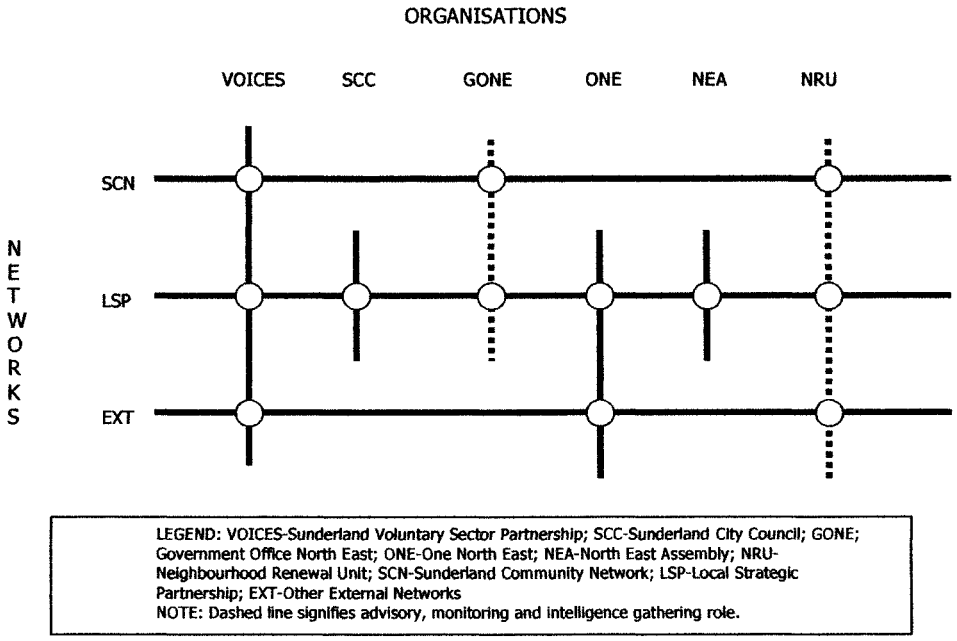


Figure 6.3 Knowledge Ecology Cluster Matrix

(Derived from Brown & Duguid 2000)

dialogue of Sunderland City Council with networks other than the Local Strategic Partnership. It can be seen that Government Office North East and the Neighbourhood Renewal Unit act, in an advisory and evaluative capacity, within the matrix, with the Neighbourhood Renewal Unit interacting on all levels. The North East Assembly interacts with all Local Strategic Partnerships in the region via its system of political representation. One North East supports the work on the North East Assembly and vice versa through the process of regional development.

The matrix is capable of being amended or an overlay produced of the effect of the emergence of the learning network. It is possible that an electronic community network may produce new connections and nodes within the matrix. In particular, encouraging an on-line dialogue between Sunderland City Council, the Local Strategic Partnership and Sunderland Community Network may well draw in other participants leading to a significant alternative re-clustering of knowledge. The matrix is also capable of being replicated at neighbourhood, sub-regional and regional levels. Again, such replication will produce new connections and nodes within the matrix.

It is possible to place Sunderland Community Network within the context of neighbourhood, regional and national knowledge clusters. The central government and community empowerment domains are divided into four dynamic spheres of governance, national, regional, sub-regional and neighbourhood. The national sphere lies at the centre of the central government domain with the other spheres emanating from it. In the community empowerment domain, the neighbourhood sphere lies at the centre with the other spheres emanating from it, as such, it represents, a mirror image of the central government domain.

Within each of the spheres of governance, information is created, captured, organised and pluralised in face-to-face, analogue and digital networks. The information continuum also intercedes in communications across spheres and domains. In the national sphere, leadership is shared between two policy units within central government, the Neighbourhood Renewal Unit and the Social Exclusion Unit. In the community empowerment domain, however, leadership and guidance from Government Office North has an impact upon all spheres of governance. One North East leads, at a regional level, on issues of regional development. The North East Assembly also operates within the regional sphere. In the sub-regional sphere, the Tyne and Wear Partnership, consists of the five metropolitan local authorities of Tyne and Wear, which includes Sunderland City Council. The Pentagon Partnership leads as a Third Sector partnership drawing its representation from the five Third Sector networks of Tyne and Wear, including Sunderland Community Network. Within the neighbourhood sphere, Sunderland City Council (statutory), the City of Sunderland Partnership (cross-sector partnership), the Sunderland Community Network (community empowerment) and VOICES (third sector) all have leadership roles. To add to the complexity of the knowledge clusters, there are a total of 11 strategy documents populating the two

domains, 6 in the central government domain and 5 in the community empowerment domain.

Viewed as a series of domains and sub-domains, the structure has significant potential as a learning network. Sunderland Community Network has started to contemplate this potential and is engaging in dialogue with Sundrerland's E-government Unit staff in creating a community network website with each member of the network being provided with a laptop computer to create a personalised learning portal. The development of the skill levels of the e-champions selected for inclusion in the E-government Unit's project are broadly supported by the University of Sunderland's principle of teaching community development as a form of liberation philosophy within communities. Sunderland Community Network recognises this as an area capable of assisting the development of other communities, at a neighbourhood and organisational level in the region. The emerging regional government framework, in particular, Government Office North East and One North East are supportive of such a development. However, there appears to be a lack of understanding, within some organisations and networks, of the significance of a learning network to the neighbourhood renewal and regional government process.

6.3.5. Swarming

Kelly (1994; 1998) refers to the 'swarming' qualities of networks. He highlights the power of nodes and connections to change formation and re-group at an almost instantaneous rate of progression. However, there is considerable potential in this manifestation of networks, and, in order to gain benefit from it some form of structure needs to be manifest:

> Without some element of governance from the top, bottom-up control will freeze when options are many. Without some element of leadership, the many at the bottom will be paralysed with choices...At present, there is far more to be gained by pushing the boundaries of what can be done by the bottom than by focusing on what can be done at the top. (Kelly 1998: 18)

The concept of meta-network formations constantly swarming was one that was familiar to all network members. Some pushed for more bottom up direction while others lobbied for more effective leadership. In reality, the tension between differing levels of

direction is a key network feature contributing to the swarming effect which Kelly highlights.

6.3.6. Structural holes

The social network analyst, Burt (1992), has provided the concept of structural holes which is useful in the analysis of community networks where large constellations of organisations come together to solve problems in cross-sector partnerships. Parts of the network form in such a manner that there are groups within networks that have no connection with each other. However, the structural hole between two groups does not mean that the people in the two groups are not unaware of each other. It tends to mean that people are focused on their own activities.

The constant presence of structural holes poses difficult questions for mapping community networks:

1. Given the emergent nature of networks (their consistent forming and reforming), how the diversity and complexity of the networks contained within a meta-network be mapped?
2. Even the network could be mapped how valid and reliable would it be and how may one 'support' the network(s)?

(These questions are addressed in the following chapter)

The three-dimensional model of a community network, made using card, string and straws, which was created by Sunderland Community Network members at their first event is illustrative of members' perceptions of structural holes. The model showed a clear perception of a network consisting of nodes and connections, but, a number of the connections were not connected to nodes.

Effective networking is relative to appropriate methods of communication. Poor means of communication can create structural holes which once created are difficult to repair as often members do not possess high levels of trust and reciprocity with others in the network. It can be extremely difficult, time-consuming and expensive to effectively monitor the effectiveness of communication. While some community networks draw up communications strategies, it is not always guaranteed that communication will be

improved. Communicating is essentially about dialogue; about creating new meaning from old and learning from this reforming of ideas. Clearly poor use of language and abundant acronyms can dilute the effectiveness of dialogue.

6.4. Collaborative technologies and knowledge sharing within the communities and networks of the Third Sector

6.4.1. The context of central government community-based ICT initiatives

For more than ten years, central government has been attempting to encourage Third Sector use of collaborative technologies to add value to their work with local authorities, the private and the public in cross-sector partnerships. The introduction of the Community Empowerment Fund can be seen as an extension of this strategy.

Sunderland's e-Champions Project provides a specific example of a partnership project between the e-Neighbourhoods Programme and the Community Network. It offers technical ICT support, services and training to network members and other parts of the Third Sector within the city of Sunderland. By working in partnership with existing Sector workers it plays a key role in engaging the local communities in the use of ICT. The Project builds upon their effective community relationships and networks and encourages the Community e-Champions to act in a facilitation role encouraging other members of their community to identify needs and requirements then use the ICT to help meet these requirements.

The Project develops and builds upon the statutory e-Champions Initiative, where Central Government, e-Champions and Local Government e-Champions are uniquely joined in Sunderland by a pool of Community e-Champions. The Project is funded by central government with the key objective of building added capacity in the Third Sector. This is made possible by building on existing networks, facilitating participation in the Local Strategic Partnership and using the technologies to sharing information and knowledge across the Third Sector. This interaction forms an essential element of the process of e-learning in organisations (McConnell 2006).

The project has its own dedicated technical support and training team whose role is to maintain any hardware and software in use by any of the projects Electronic Village Halls or e-Champions. Free laptops are regularly updated with new versions of software

and e-champions are given basic training in:

1. Using a Laptop.
2. Surfing the internet.
3. Basics of email.
4. Microsoft Power Point and Publisher.

This support and training happens both in a classroom situation and at a local facility suitable for the e-champions themselves. A special online course for using Microsoft Powerpoint and Publisher was created as many individuals needed to create newsletters, leaflets and presentations for their parent organisations on the work of the community network.

6.4.2. General use of collaborative technologies

Some respondents saw collaborative technologies being used as a control mechanism by some partners, particularly, the local authority. Often, emails were not circulated to all in a particular feedback loop or response times for comments were so tightly restricted it appeared to only allow for full-time professionals, specialising in a particular issue, time to respond. Despite these issues being raised with the key partners, it was felt that little progress had been made on these issues leading to a noticeable climate of mutual mistrust in the use of this technology. The mistrust was mutual because the local authority believed it was accessing the correct nodes in the network while members of the network held the belief that the wrong nodes were being accessed. This process was further frustrated by the evidence of organisational hierarchies in Third Sector organisations failing to create their own feedback loops to 'flatten' these hierarchies.

As with many people using the Internet, members experienced difficulties with searching and retrieving information and knowledge. Most common difficulties included:

1. Many downloadable files were too large and took a long time to download.
2. Individuals were not always competent at using search engines.
3. Many sites were not found.
4. Incomplete links.

Due to these common difficulties, many respondents did not trust the Internet as a resource especially those that were using it for the first time as part of their community network responsibilities. However, creating databases of networks was seen as a key function of collaborative technologies within the community networks. Some respondents saw the importance of building a database of network members but saw it equally as important to build a database of those not in the network in order to attract members to it. Furthermore, community network websites were viewed as under-developed and under-utilised. The use of the network website was seen as particularly important to develop black and minority ethnic involvement.

There was a marked difference between South Tyneside and the other two networks in the use of collaborative technologies. South Tyneside displayed only limited visible use of collaborative technologies and no debate was evident of the integration of these technologies into the functioning of the network. At one meeting, however, there was some general discussion on the strengths and weaknesses of the creation and use of websites. This discussion, however, lacked any strategic action on the main points discussed as the role of a website was eventually seen as minimal to overall network development.

6.4.3. Email Usage

Most respondents viewed email as a key means of information and knowledge sharing. In particular, it was seen as an appropriate means of rapidly accessing the wide range of skills and experience which was held by the individuals and organisations within the network. Others saw it in terms of a key means of collaboration and networking; a significant way of adding extra value to their face-to-face networking activity. This view was prominent amongst established face-to-face networkers who had taken readily to networking online.

One respondent saw it as an important means of raising issues and provoking a discussion in similar way to an electronic forum or electronic mailing list, although she had no prior experience of these applications. By utilising her email in this way, she claimed she could 'tap into the knowledge of others and avoid re-inventing the wheel'. On the other hand, only one respondent utilised discussion forums and electronic mailing lists but clearly saw this as a 'way of keeping in touch with new developments' which were 'fed back to staff and other network members' (SCN: 6).

In South Tyneside, email was widely used by STRIDE staff to communicate with other members of staff but no email communication was evident between staff and network members. This communication between staff of the lead organisation was viewed as essential to the smooth operation of the network hub which ultimately benefited the core, active and peripheral members of the network through better dissemination of information and knowledge at face-to-face events.

A number of respondents saw email as an effective means of sharing and commenting upon key documents, especially when a rapid response was needed. This is of significance to network members given the high number of partnership reports which need to be consulted upon. Again, however, it was the most established networkers who took greatest advantage of this facet.

One respondent was particularly concerned that email was under exploited as a consultation and feedback tool between partners and across networks. He argued that this demonstrated the low level of technological capability of network members' (STCN: 5).

Most respondents used email as an effective tool for suggesting, organising and administering meetings. Two respondents saw Microsoft Outlook as a particularly useful tool as it linked email, calendar and contacts. One, in particular, thought that all network members should be appropriate and effective users of Outlook and would benefit from training on this application.

6.4.4. Internet Usage

The greatest use of the Internet amongst network members was for information and knowledge gathering as a briefing source both before and after meetings. Usually, this intelligence gathering was restricted to a number of key sites. Specific information sources were charitable and central government funding information, national, regional and local policy information, service-based information particular to an organization and information from Government Office North East and One North East. In most cases these sites were bookmarked in browsers and a knowledge base was created with could be shared with other network members. The second most popular use was for purposes

of individual or collective research. This research was undertaken to gain knowledge of an issue and to support more effective interaction in face-to-face activities.

Some respondents also saw the Internet as a key source for downloading documents that were referred to in the press or emails. A number also used the Internet as a source of central government guidance on key issues, although such guidance was often seen as unnecessarily length and turgid in terms of content and they frequently sought knowledgeable interpretation of such documentation through email discussions. Some urged the need to edit such content into appropriate form for wider distribution and acknowledged the need for an effective content manager in the lead organisation.

As Third Sector organisations are precariously placed in terms of long-term funding for projects, a major area of usage was as a source of project funding information. Also network activity leads to the need for specific issues for exploration and events which need to separately funded.

Other areas of usage included: monitoring Local Authority strategies, policies and procedures, accessing information on Third Sector issues and monitoring other community network for knowledge on best practice.

6.4.5. Access, connectivity, competence and content: the AC3 principle

As stated previously, access, connectivity, competence and content are the key issues which have driven Third Sector interest the use of collaborative technologies over the last ten years. This we shall refer to as the AC3 principle. The AC3 principle has begun to guide central government policy towards community use of the Internet over the last five years. It recognises that a balance needs to be struck between access, connectivity, competence and content when making use of Internet-based technologies for community development and empowerment. There is now a realisation on the part of the Third Sector and Central Government that access to collaborative technologies should be open to all potential users regardless of their geophysical location or physical and mental ability. Connectivity needs to be appropriate, that is, email does not necessarily require the high bandwidth that some multimedia packages need. Competence needs to be increased relative to the capacity of the community it serves to use the technology effectively. Content needs to be created by and be relevant to the communities it serves.

In terms of access, while it has clearly increased significantly over the last five years, it still suffers from two major failings in the North East. Firstly, domestic Internet usage, while it has risen over the last few years is still considerably lower than other, more affluent, parts of England. Secondly, those who tend to access it to build on-line communities are still largely white, male and middle-class professionals who were already excellent face-to-face networkers prior to the introduction of computer-mediated-communications. The numbers of socially excluded individuals and groups making use of very basic forms of collaborative technologies are still extremely low.

Content has reached a point far beyond information overload and a plethora of community networking sites are growing, exponentially, by the hour, across the globe. Where, however, is the locally-based content, relevant to communities and neighbourhoods, which is put on-line and accessed by them for community-building purposes? It is there, but, there is still not enough of it which is relevant and high-quality for purposes of community development and empowerment.

Connectivity is broader and generally better quality but the bandwidth can often be choked with little more than electronic dross. It is fully understood that messing around in chat rooms and sending electronic postcards forms part of the cyber-learning curve. What is needed, however, is dedicated community servers with their own dedicated lines of connectivity bringing community content to access points twenty four hours a day, seven days a week.

Competence is greater than ever but can never be absolute given the pace of hardware and software advancement. What appears to be happening is that large groups of socially excluded young people, in particular, have high levels of competency but have low levels of access to appropriate hardware and software.

According to the Neighbourhood Renewal Unit (2001a; 2001b; 2001c; 2002), the power of the Third Sector's vision is grounded in its ability to move towards the future in a profound way. It stems from a number of key characteristics, including:

1. Being personal and passionate.
2. Expressing its deepest values.

3. Describing what it has to offer.
4. Believing that the power of vision can overcome current constraints.
5. Describing who they are and what they want to become.

These key characteristics of the power of vision are now harnessed within central government's national ICT Hub strategy in terms of (Dudley 2000):

1. allowing community networks to engage collaborative technologies on their own terms and through issues that interest them passionately, such as, their interest in the environment that surrounds them or the history of their neighbourhood;

2. introducing appropriate and effective collaborative technologies, which add value to the deepest values expressed via existing face-to-face networks that exist within communities;

3. encouraging communities to use collaborative technologies to describe what they have to offer other residents and the various other communities that surround them;

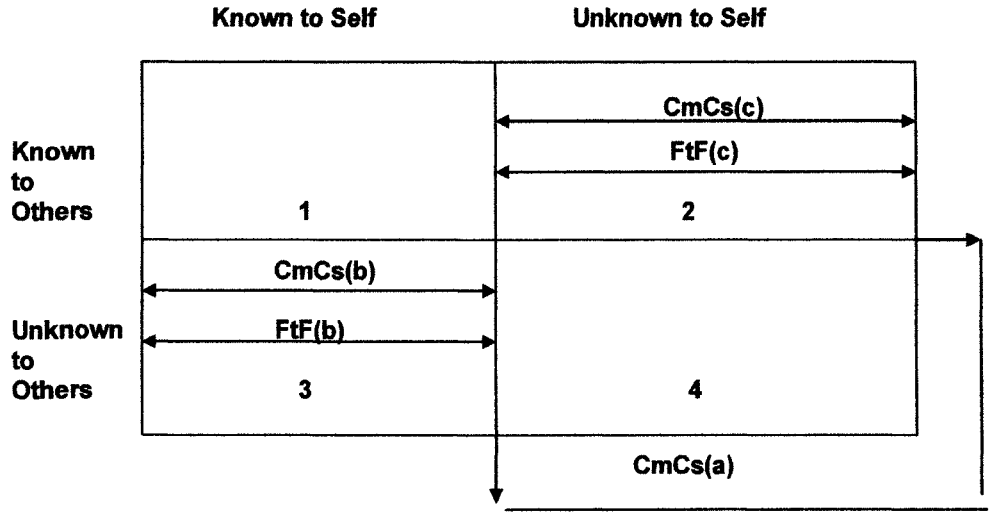
4. promoting a collective belief that shared vision can overcome current constraints imposed by socio-economic factors that are often seen as overpowering communities;

5. allowing communities to use collaborative technologies to establish a shared identity of where they are at and what they want to become.

Clearly, what is established at national level may well fail to have similar power at a regional and sub–regional level due to variations in political, social and economc sub-cultures. At present, the power of this vision for the Third Sector has not been established at a regional level.

6.4.6. Looking through the Johari Window

In an attempt to understand some of the issues surrounding the use of coolaborative technologies within the Third Sector, it is useful to consider the concept of the Johari Window (Luft & Ingham: 1955) (Figure 6.4).



[CmC=Computer Mediated Communications FtF=Face-toFace]

Figure 6.4: The Johari Window applied to the use of collaborative technologies

(Derived from Luft & Ingham 1955)

The four quadrants of the Johari Window represent one person in relation to others with, each quadrant revealing awareness of behaviour and feelings. Some awareness is shared; some is not. The quadrants are, therefore, labelled:

Quadrant 1 - Open: Behaviour and feelings known to self and known to others.
Quadrant 2 - Unaware: Behaviour and feelings known to others but not known to self.
Quadrant 3 - Hidden: Behaviour and feelings known to self but not to others.
Quadrant 4 - Unknown: Behaviour and feelings known neither to self nor to others.

If the Johari Window is applied to the use of collaborative technologies within the Third Sector it can be seen from the views of all the above respondents that they see themselves as sharing and exchanging knowledge differently in face-to-face networks and computer-mediated communications. In face-to-face networks, individuals feel comfortable about sharing knowledge about themselves and their organisation with someone they have just met or do not know particularly well. In computer-mediated communications, this comfort factor is not prevalent and individuals and organisations

are unwilling to share knowledge in this space with others who they cannot see and may well have never met. Such a scenario is confirmed in the knowledge architecture described in this Chapter.

In computer-mediated communications, the unknown quadrant is larger than face-to-face networking (CmC(a)). In face-to-face networks, even when participants meet for the first time, something is generally known about participants and the organisations they represent. This is often not so in computer-mediated communications as identities can be hidden, disguised or assumed. In the words of the famous Peanuts cartoon, "on the Internet no-one knows you're a dog". Some respondents were willing to exploit this fact to the advantage of the organisation while others used it to progress chosen career paths.

In the open quadrant, face-to-face networks tend to encourage sharing of knowledge about oneself encroaching upon the hidden quadrant (FtF(b)). Information about oneself becomes known rather than unknown to others. In computer-mediated communications, the disclosure of information about oneself sometimes does not take place. When it does, however, it is often not to the same extent as in face-to-face networks (CmCs(b)). There is some evidence, however, that where members had met face-to-face as their first contact they were willing to reveal more personal information in a computer-mediated environment.

When interactive feedback begins to take place, it is the beginning of a two-way conversation. The open quadrant begins to encroach upon the unaware quadrant and a mutual awareness is created between the participants (FtF(c)). In computer-mediated communications, creating a two way conversation, similar to face-to-face is difficult, but, not impossible, creating less of an encroachment into the unaware quadrant. There is clear evidence, however, that where individuals were established face-to-face networkers prior to the use of technologies they became the most effective electronic networkers.

6.4.7. In search of a technological solution

The fieldwork suggests that face-to-face and telephone use are the preferred methods of information transfer, knowledge sharing and intelligence gathering. There is little evidence of using network technologies for this purpose although email is used it is

primarily for attaching files, flagging events, and setting meetings. If the network is to improve it needs to make better use of these technologies to maximize impact on the agenda setting, deliberation and policy formulation phases of political activity that is clearly evident in other sectors.

The network needs to explore, in particular, how the integrated use of technologies, such as the Internet, Intranets and Extranets can make greater use of file, document and knowledge sharing. However, there is no reason why the existing websites could not be revised to provide a network/community portal.

Ultimately, such integrated application of collaborative technologies will lead to better networking and knowledge sharing if combined with other knowledge sharing techniques outlined in this strategy.

At this point, we must ask ourselves the question: is there a single application that meets all the needs of a knowledge sharing network? The simple answer is probably no. However, developers of knowledge-sharing networks should not be perturbed by this as we acknowledged earlier in the thesis that there is no technological 'quick-fix' to effective knowledge-sharing in networks. Knowledge-sharing in networks is a combination of appropriate face-to-face networking and using collaborative technologies to add value to face-to-face interaction.

6.5. Summary of main points

Knowledge architecture is created by individuals and organisations in an attempt to better understand the world that surrounds them. Once interpreted, this knowledge architecture begins to define relationships between the individuals and organisations that exist within its complicated superstructures. At this point, a symbiotic relationship between users and superstructure creates complex semiotic patterns which begin to define and re-define the function, form and content of knowledge architecture. An attempt has been made to portray the richness of the shared mental and physical spaces within which this complexity exists. Within the case studies, formal and informal communities of practice are constantly emerging, developing and re-emerging depending upon the relevance of the issue that forms domain of the community. The size of communities impacts on how they function, in particular, it influences the form of centre-periphery relations. In short, the larger the community; the more difficulty is

experienced in the core retaining appropriate and effective relationships with active, peripheral and transactional members.

Community network members demonstrate an acute awareness of the concept of the network society and the importance of networking to personal, social and organisational development. Some members, however, criticised the lead organisations for organising network events which lacked focus. This was an issue where volunteers and professionals sought a more appropriate and effective symbiotic relationship.

Members were also aware of the concept of meta-networks, although, most would not use this term to describe a network of networks. Some criticised the lead organisation for failing to facilitate more effective networking of existing networks and failing to create appropriate cross-sector networks with other organisations within the Local Strategic Partnership. Some volunteers expressed the view that professionals were manipulating social networks for their own ends, in particular, to progress individual career paths in other sectors.

Of the collaborative technologies used almost all of the respondents, to a lesser or greater extent, felt more comfortable with email as a knowledge sharing platform due to its accessibility, informality and spontaneity. All believed that if knowledge was to be shared effectively it must take place in a face-to-face exchange with the majority believing that an informal exchange was a more effective platform than a formal, structured exchange.

7. In search of added value...towards a working model of knowledge sharing in the Third Sector

7.1. Introduction

In Chapters 5 and 6, various aspects of the research objectives were examined in the light of the fieldwork finings. This Chapter provides analysis of the fieldwork findings in the light of the research question and the aim of exploring the development of a working model of knowledge sharing in the Third Sector. Such a model must be designed and developed in the light of the added value of knowledge sharing to the Sector. In order to seek out the added value of knowledge sharing, it is necessary to examine the relationship between formal and informal knowledge sharing platforms and the use of collaborative technologies in both communities of practice and social networks.

The Chapter explores the development of a working model by analysing knowledge sharing through three primary activities, formatting, networking and learning. Each of these activities is examined in detail and comments are made as to how they can most effectively utilise the potential added value of knowledge sharing. Finally, suggestions are made as to how to progress the working model as a development tool for knowledge sharing in the Third Sector.

7.2. In search of added value

Added value refers to the value added by the impact of a series of variables on a particular process. In this case, the process is that of knowledge sharing and the key variables which have emerged which impact upon this process are trust, reciprocity and various forms of social capital within and between organisations identified in sections 5.3 and 6.3. It is important to highlight the relationships between formal and informal knowledge sharing platforms when seeking this added value.

7.2.1. Formal and informal knowledge sharing platforms

The majority of respondents in this study referred to their preference for informal knowledge sharing over formal knowledge sharing. The more flexible the platform for knowledge sharing, the greater the voluntary sharing of knowledge. So, it is important to differentiate between these two platforms when assessing the added value of knowledge sharing to existing data and information sharing systems.

When referring to informal knowledge sharing, respondents were largely referring to face-to-face interaction in an informal setting, such as, over lunch, in a public house or during breaks in meetings. They appeared to feel that this was the most effective way of sharing knowledge as face-to-face interaction means that you can take account of people's appearance and body language. These are facets of an individual which cannot be observed in cyberspace. As a result, bonds were created between individuals built upon reciprocity and trust which could build bridges between, individuals, and, in turn, groups, organisations and partnerships.

In reference to formal knowledge sharing platforms, such as, meetings, seminars and focus groups, respondents made reference to the rigidity of the agenda, over-reliance on 'expert' opinion and poor facilitation as inhibitors of knowledge sharing. In particular, newcomers felt that the most formal face-to-face meetings were often exclusive to those 'in the know' on the issue, or issues, under scrutiny. In many cases, the parent organisation of a partnership would rely on its own internal data and information systems for agenda setting which restricted the added value of knowledge sharing among all partners. Expert opinion was also viewed as being partial and often not capable of being criticised by differing levels of insightful practical knowledge. It was clear to some that cross-sector working was not as open to knowledge sharing as it could have been.

In contrast to the above apparent dichotomy between informal and formal knowledge sharing activities, a range of face-to-face events, for example, conferences, residential weekends and away-days, were seen as providers of both formal and informal knowledge sharing activities where both newcomers and veterans could share knowledge. However, such activities are driven by the need for a high level of human and other resources taking a great deal of time and energy, on the part of the organisers. The community networks under investigation were aware of the benefits of this type of interaction and took two very different routes to progress it. Newcastle and Sunderland began to explore collaborative technologies as a means of sharing veteran and newcomer knowledge on key issues. In South Tyneside, where there was a very low level of usage of collaborative technologies, bi-annual face-to-face events, sponsored by a range of organisations, were beginning to emerge. These events combined a wide and varied range of formal and informal knowledge sharing platforms, such as, informal networking, poster presentations, seminars, workshops, expert witness sessions and

plenaries.

The relationship between formal and informal knowledge sharing does have implications for how collaborative technologies are deployed in community networks. Knowledge sharing platforms appear to be most effective where there is:

- A culture of reciprocity, where participants see some form of mutual benefit.
- A climate of trust, built upon a willingness to work together for the common good.
- An atmosphere of emerging social capital, where individuals seek to build working bridges, bonds and links with like-minded others.

7.2.2. Collaborative technologies and added value to face-to-face knowledge sharing in communities of practice

In order to assess the level of added value of collaborative technologies to communities of practice, the six-point test for community cohesion derived from Wenger (1998) has been utilised. As a result, the added value of collaborative technologies has been examined in the following areas:

- Shared vision
- Collective knowledge
- Sense of community
- Learning networks
- Common practices
- Information sharing culture

7.2.2.1. Shared vision

The communities of practice, under investigation, consisted of both single and multiple issue entities. They were also a combination of both single and cross-sector partnerships. As a result, there was a range of visions which were shared under these headings:

- Third Sector
- Local Strategic Partnership

In terms of the Third Sector, value was added to the shared vision of its development by the use of the Internet, email and mobile phone as knowledge sharing tools. The Internet provided the added value of providing sector-based documentation on the strategic development of the Sector complied by the National Council for Voluntary Organisations and Voluntary Organisations Network North East. Email added value by ensuring appropriate people and organisations were in attendance at key meetings and it was also used as a key tool for document sharing. It is apparent, however, that those at the core of the communities tended to be more effective in utilising email as an intelligence-gathering tool. Mobile phones added value to face-to-face meetings for those on busy schedules as they could follow up discussion points by mobile phone between meetings. Younger mobile phone users had a propensity to use the text messaging function to clarify or share points during meetings. This form of multi-tasking was more evident among female, young people.

The single-issue-based communities of practice associated with the Local Strategic Partnership adopted a different role in their use of collaborative technologies. These technologies were largely utilised by Local Authority officers. Use of technologies, by these officers, was viewed with suspicion by some members of the Third Sector which often led to tensions in face-to-face situations. Third Sector representatives appeared to feel that Local Authority officers were selective in their use of Internet-based material, selective in their use of email and often failed to reply to mobile phone and text messages. If collaborative technologies added value in this scenario it was in terms of a face-to-face discussion on their appropriate and effective use in a given context.

7.2.2.2. Collective knowledge

Collective knowledge is prevalent in three clusters:

- Third Sector
- Community development
- Regeneration

There is a collective knowledge on how the Third Sector operates, as a result, there is a tendency to utilise email as a means of adding value to discontinued face-to-face knowledge exchange in meetings. Some of this collective knowledge also appears to find its way onto community network websites and onto websites of partnership

organisations.

The major collective knowledge cluster across community networks appears to be that of community development which, as a recognised academic discipline, has amassed a wide range of knowledge in a variety of nodes both on-line and off-line. Many community development practitioners make extended use of websites providing primary source material on new forms of best practice which filters into face-to-face activity via email, mobile phone and text platforms. Those at the core of the communities tend to make the greatest use of these sources while lacking appropriate mechanisms for filtering this knowledge to the periphery of the community.

Another significant collective knowledge cluster is that of regeneration. Regeneration has been closely aligned with community development as part of central government policies since the mid-1970s. Debates on regeneration tend, however, to take place on a strategic level needing full-time professional input as well as the practical experience of volunteers. It would appear that little use of collaborative technologies is made to add value to face-to-face interaction as most practitioners tend to prefer discussing strategy face-to-face.

7.2.2.3. Sense of community

When referring to a sense of community reference is being made to the sense of community within the community of practice itself. In this case, email was used as a major source of added value to face-to-face interaction as a means of:

- attracting new members to the community;
- legitimising peripheral participation in the community;
- re-assuring 'newbies' of their value to the community;
- and, linking 'newbies' with 'veterans'.

Although some of this activity was conducted at a face-to-face level, often it was the email activity that forged long-term bonds, bridges and links. This illustrates the significance of using email to promote social capital.

7.2.2.4. Learning networks

The primary point at which collaborative technologies add value to face-to-face interaction is at the interface between communities of practice and social networks. In order for the community to function as a learning network, it must be sharing knowledge in certain forms of content. As van den Boss (2006) notes networks organised around cultural content are the most inclusive and central and those which centre upon politics, the most exclusive and isolated. This finding is borne out by this study as the culture of the Third Sector, its meaning, identity and values are seen as superior to those of the political organisations with which it interacts. To a greater degree, the exclusivity is evident at the micro level of the Local Authority and, to a lesser degree at the macro Central Government level.

Networks, for the provision of both formal and informal learning, were created through the combined and often seamless use of Internet, Wide Area and Local Area Networks. Those at the core of the various emergent communities were digitally tied into the formal learning networks while, at the same time, utilising the technology to create new networks of learning. In terms of the Local Authority and the Local Strategic Partnership this suggested a need to bridge the cultural differences between forms of governance. Some partners in other sectors to the Third Sector were willing to share knowledge through learning networks while others were unwilling to accept that the knowledge sharing culture of the Third Sector could be considered superior to their own.

7.2.2.5. Common practices

If we divide the political activity of the various single and multiple issue communities of practice into three phases:

1. agenda setting;
2. deliberation;
3. and, policy formulation;

it is possible to see emerging patterns of the use of collaborative technologies to add value to these three phases.

Traditionally, in cross-sector partnerships, prior to the emergence of community

networks, the Local Authority would have been seen as responsible for setting the agenda, recording deliberation and formulating policy documents. The emergence of community networks and their various communities of practice, however, suggested a greater involvement in all three phases by both professional and voluntary Third Sector members. To accommodate this involvement, a condition of Central Government funding, the Local Authority began to utilise collaborative technologies. These technologies were used to consult on a range of cross-sector partnership development and as a means of knowledge sharing on how political activities could be progressed which satisfied the Central Government agenda.

In terms of agenda setting, draft agendas were circulated as email attachments for comment. However, this practice was subject to the scepticism of some members who saw the Local Authority operating in an exclusive manner claiming that comments of draft agendas did not always impact upon the final agenda. Similarly, the deliberations were recorded and stored electronically, often accessible via the Internet. Again some members claimed that the language of the records was often exclusive in its use of Local Authority jargon. The production of policy documents had become a joint cross-sector task with core members of the various communities creating working groups to formulate documentation which was shared electronically throughout the creation process.

7.2.2.6. Information sharing culture

There was evidence of an information sharing culture emerging in the Third Sector which was capable of creating a knowledge base for Third Sector development, community development and regeneration. Certain key organisations were beginning to exchange information through accessible databases, emails and websites but they tended to be those referred to as first-tier organisations. First tier organisations were providers of services to other Third Sector organisations and their workers tended to be very effective professional networkers and enjoyed an information sharing culture which others claimed difficult to access. However, some network professionals, such as those in Sunderland, were conscious of the difficulty of the division between the differing levels of networking ability.

In order to address the above problem, Sunderland's first tier organisations employed a team of consultants in 2005 to:

- Assist the key infrastructure organisations in establishing a better understanding of each other systems.
- Establish a collective commitment to developing a system for sharing information and knowledge.
- Make organisations more aware of the strengths and limitations of their own systems.
- Assist more information and knowledge sharing between organisations.
- Provide a measurable impact upon the performance of individual infrastructure organisations.

The outcome of this project, following a knowledge audit, was the establishment of a knowledge management strategy for the Third Sector. This strategy was shared with all partners and resulted in the establishment of a series of knowledge sharing protocols between partners.

7.2.3 Collaborative technologies and the added value to face-to-face knowledge sharing in social networks

In order to assess the added value of collaborative technologies, it is necessary to examine the following network phenomena:

- network ties;
- degrees of separation;
- and, structural holes.

It is also important to assess the added value created in the community space utilised for meta-governance and learning networks.

7.2.3.1. Network ties

Many strong network ties tend to be neighbourhood, familial or dyadic, and, as such, have little or no value added through the use of collaborative technologies. There are, however, strong ties between people in organisations and partnerships. The degree of added value tends to be relative to the technological skills of these people. In most cases, individuals tend to bond, bind and link these ties through the use of email, mobile phone and text messaging. However, as noted previously, use of collaborative

technologies is relative to the face-to-face networking skills of individuals, the skill level of these individuals and the accessibility of these technologies within organisations.

Often, strong ties are forged with key people in regional or national organisations that provide strategic or developmental support to individuals and organisations. In this instance, there is a tendency for the use of collaborative technologies to take several distinct forms:

- Sending files as email attachments.
- Sharing references to documents of particular interest.
- Sharing URLs of key websites.

Evidence of the exploitation of weak ties was displayed in the relationships between both professionals and volunteers with those they deemed to be experts in a particular field. Often, initial face-to-face relationships had been established at regional or national events in informal environments. Usually email was used to sustain these relationships which become based on the mutual exchange of best practice in the field. Some of these relationships further exploited weak ties with other professionals and volunteers.

7.2.3.2. Degrees of separation

The concept of degrees of separation has passed into popular culture and most respondents in this study were aware that it was possible to contact someone who could connect them to a person close to someone they needed to contact. In order to do this, most community networks had provided online discussion forums where many questions were asked along these lines. Although some clearly felt that this line of investigation could often prove unsuccessful as it depended on contacting the appropriate person in the first instant. However, members saw their organisation's involvement in small worlds as overwhelmingly positive. Knowledge-based activities are seen overwhelmingly in terms of their added value towards practice improvement. Members favour knowledge-based activities, including utilising degrees of separation, which related to practice improvement or Sector improvement. They saw the manipulation of small worlds in this light.

7.2.3.3. Structural holes

The concept of structural holes refers to the lack of connections between nodes in a network and a lack of connectedness between networks in a meta-network. Community network members have demonstrated an acute understanding of the concept of structural holes, although, they may no know them by this name.

Much face-to-face discussion took place at various meetings and events about filling these holes through connecting existing networks and bringing those unconnected into the meta-network. Community networks were collaborating through technologies to add value to this discussion, in particular, by:

- Sharing key contacts with each other by email.
- Sharing contact databases between organisations and across partnerships.
- Creating web pages where network member's connections were listed.

In Sunderland, the network shows a lack of structural holes in the Sector with active connections between all first tier organisations. There is also a substantial interactive series of active connections between umbrella projects within Tyne and Wear. Furthermore, there is a notable lack of structural holes in relationships with various sections of Sunderland City Council. The network shows a balance between information, knowledge and trust-based connections which reflects where organisations are located or co-located in the infrastructure. The consultative organisations which populate the periphery, such as, the Community Foundation and Voluntary Organisations Network North East enjoy a trustworthy connectivity with the core. Overall, the balance between information, knowledge and trust networks is highly functional. The nodes in this community network, by organisation, vary greatly in size. If we assume that social anthropologists are correct in their belief that a personal network has difficulty functioning beyond a certain size, then the network is functioning below its optimum capacity. This is a common problem with organisations working on a strategic, co-ordinating level.

7.2.3.4. Community space, meta-governance and learning networks

In terms of the community spaces evident in social networks, community networks have begun to demonstrate a significant understanding of the relationship between mental and physical space. They are beginning to acknowledge the role of collaborative

technologies in creating bridges, bonds and links between these spaces. However, there is a continuing need to facilitate wider understanding of this relationship both internally and externally within and between organisations.

The emergence of patterns of social networking is symptomatic of the ability of members of the network to see the power of meta-networks. Moving in a complexity of meta-networks also enhances the comfort factor of operating within social networks where meta-networks are used as a means of changing organisational culture. Some of this activity is supported by the use of collaborative technologies to add value to knowledge sharing practices.

While this offers a positive and transferable overview of the creation of informal communities of practice and community knowledge sharing, the development of a detailed model has been subject to a number of barriers:

1. The time spent gaining agreement on a shared model of collaborative working (almost eighteen months) of a meta-network. For people who are unfamiliar with informal, dynamic and flexible working relationships any model engaging both face-to-face and technological solutions appears simultaneously complex and radical.

2. Agreeing knowledge-sharing protocols with transactional partners where the shared vision did not appear to be as advanced as that of the community network. Local Strategic Partnerships have a wide range of partners all from different sectors of the economy and all appear to be at different levels of skills and experience in partnership working. Within the Local Strategic partnership, the Local Authority is seen as dominating the use of collaborative technologies and the added value to the Third Sector is considered minimal.

3. Discussion on the creation of a critical mass for development was hampered by turnover in key personnel. It was recognised, from the outset, that champions of any model would play a key role in the creation of this critical mass. However, the skills acquired by the champions, in this dynamic working environment led to their rapid progression to roles within other networks and

organisations with a loss of skills and experience to community networks themselves.

4. The lack of an education programme on the tripartite framework for 'newbies' which makes significant connections with 'veterans' via 'mentors'. This has developed on an ad hoc basis. There is now recognition of the need for a strategy which connects skills and knowledge which is particularly evident in the work with Sunderland City Council's E-government Unit.

As part of this examination, the context of meta-governance was defined and the ways in which four different models of governance impacted upon internal and external dialogue were reviewed. This regional government framework is in a constant state of flux and may be subject to radical change depending upon the success of a regional referendum on a representative, independent form of regional government. The implications for the meta-network are, as a result, far-reaching. However, given this complexity, there is a maximisation of the potential for adding value through the use of collaborative technologies.

The thesis has also explored the potential of community networks as learning networks. Community networks recognise that this is as an area capable of assisting the development of other communities, at a neighbourhood and organisational level in the region. The emerging regional government framework, in particular, Government Office North East and One North East, is supportive of such development. However, there appears to be a lack of understanding, within some organisations and networks, of the significance of a learning network to the neighbourhood renewal and regional government process. The Learning and Skills Council, however, has created a regional Third Sector learning network which has a significant presence in the virtual world and the use of email and Internet-based technologies are promoted as a means of supporting face-to-face learning.

The significance of community development as a form of liberation philosophy has also been highlighted. This view is shared by small sub-groups of the community network core groups. It is worthy of support in its own right as a means of viewing the community development process as a form of reflective practice. Many professional community development practitioners within community networks form part of the

regional community development consortium which makes appropriate use of collaborative technologies, in particular, email.

7.4. Towards a working paradigm of Third Sector knowledge sharing

When attempting to define the nature of knowledge and its flow within the organisation it is possible to view many Third Sector organisations as communities of practice in their own right as they operate as inter-agency, cross-sector groups tasked with achieving a specific set of project outcomes. The challenge of establishing an interactive knowledge network which captures intellectual capital and allows for its reallocation to strategic points lies in charting the relationship between the key processes of formatting, networking and learning (Lambe 2007).

Charting the function, form and content of the individual activities of formatting, networking and learning from knowledge and, in turn, analysing the relationship between the three can provide a working paradigm which can be utilised as a knowledge management development tool for the Third Sector. The purpose of this section is to explore the above relationships, propose a working paradigm and suggest a way that this model could be developed within and between organisations.

7.4.1. Designing, drafting and developing a working paradigm

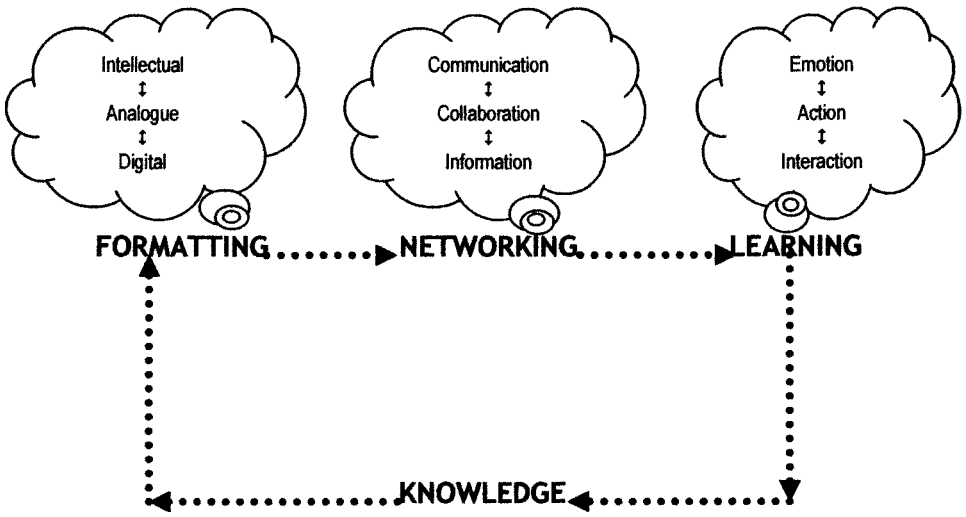


Figure 7.1: An initial working paradigm of Third Sector knowledge sharing

If we accept that it is possible to create a working paradigm of how the Third Sector shares knowledge then the above model (Figure 7.1.) provides an initial starting point. In this model, knowledge sharing is viewed as a dynamic, cyclical and holistic process which involves three phases of activity:

1. Formatting: formatting knowledge is the phase of activity during which knowledge is absorbed by people's minds or filed within the organisation in analogue or digital modes.

At this stage of knowledge sharing, the key questions are:-

- What is the origin of the knowledge?
- What relationship exists between the origin of the knowledge and the community of practice?
- What is the most appropriate platform (i.e., analogue, intellectual or digital) for the generation, coding and transfer of knowledge?

The origin of knowledge (organisation, partnership or government) not only defines the fomat but also the language used and the dialogue which results. Its origin also defines the parameters of dialogue within communities of practice with some documents (particularly strategy documents) being used to reduce dialogue amongst wider partnerships. Such documents are refered to as 'boundary objects' as they delimit the dialogue to the originating authors. It is, therefore, significant which platform is used to promote knowledge sharing in a specific context.

2. Networking: networking is the core activity of knowledge sharing. It involves information sharing, collaborating with others and communicating knowledge transferred and added to other parts of the community of practice.

At this stage of knowledge sharing, the key questions are:-

- Is all knowledge being shared equally within the organisation?
- Are the appropriate people collaborating with each other?
- Is knowledge being transferred equitably throughout the organisation?

As knowledge is a key intellectual asset to an organisation, it is important that provision is made within organisational strucutures which facilitate knowledge flow. This implies that the most appropriate individuals are connected to others. To enable knowledge flow there is a need for a system of equitable knowledge sharing within organisations. One way of achieving this is through the creation of a revisable knowledge management strategy which values knowledge sharing between all individuals.

3. Learning: learning is the phase of knowledge creation where the actual added value is assessed by the organisation. It results in an alteration of the group's knowledge base through a development cycle of emotion, action and interaction. It often results in a new group, project, sub-project or identity which in turn creates a further cycle of knowledge creating activity.

At this stage of knowledge sharing, the key questions are:-

- Has the added value been identified, the process of sharing monitored and evaluated by the organisation?
- What effect has this added value had upon the actual knowledge base of the organisation?
- Is the output from the added value of the knowledge created appropriate to the operation of the organisation?

Identifying the added value of knowledge to the organisation is an ongoing process of monitoring and evaluating its significance to the organisation, how it impacts on its knowledge base and ensuring the added vale is output equitabaly across the organisational structure. When these three elements are defined, developed and begin to interact, the organisation can begin to consider itself as at the threshold of becoming 'a learning organisation' rather than an organisation which can learn.

Each phase of knowledge sharing activity will be evaluated in turn.

7.4.2. Formatting

Appropriate formatting of knowledge is relative to its origins, the relationships between key players and the platforms used for gathering and exchanging it. Knowledge initially

originates in the form of data or information and individuals and groups add value by differentiating between its source, validity and format.

Data, information and knowledge sources vary in Third Sector organisations as they do in other organisations. However, given central government's attempts to align the Sector's knowledge systems with those of other sectors, some coding of sources of data would appear to be appropriate. Identifiable sources of knowledge, such as:

- community groups;
- Third Sector organisations;
- Local Strategic Partnership;
- local government;
- regional government;
- central government;
- and consultancies,

could be coded as a continuum of knowledge sources ranging from community groups to consultancies.

A number of Third Sector organisations are unable to address this task due to the lack of a trained information and knowledge officer. The appointment of a trained information and knowledge officer would also be capable of validating the usefulness of knowledge received with the value of the knowledge being coded into the continuum method mentioned above. Such a system does not require a highly sophisticated database as it is a transferable system which could be utilised across intellectual, analogue and digital platforms. The information could be retained in its original file format and extracted, in whole or in part, as required.

Simple coding of data, information and knowledge would also add value to the various knowledge sharing relationships with individuals, organisations, partners, task-based teams and other sectors. Appropriately coded and extracted for purpose this knowledge could serve the needs of all levels of management and the formal and informal knowledge sharing platforms which are crucial for effective performance.

The technologies examined during the fieldwork were email, Internet, mobile phone, text messaging and community networking websites. Most respondents used almost all to a lesser or greater extent with some feeling more comfortable with email as a knowledge sharing platform due to its accessibility, informality and spontaneity. All, however, believed that if knowledge was to be shared effectively it must, in part, always take place in a face-to-face forum. Some respondents saw collaborative technologies being used as a control mechanism by some partners, particularly, the Local Authority. Often, emails were not circulated to all in the loop or response times for comments were tightly restricted. Despite these issues being raised with the key partner in Sunderland, it was felt that little progress has been made on these issues leading to a climate of mutual mistrust in the use of collaborative technologies.

Difficulties were often experienced with searching and retrieving information from the Internet. Due to these common difficulties, many respondents were untrusting of collaborative technologies. Some respondents saw the importance of building a database of 'white pages' network members details but saw it equally as important to build a database of those not in the network in order to attract members to the network. The use of the network website was seen as particularly important to develop black and minority ethnic involvement.

There was a marked difference between South Tyneside and the other two networks in the use of collaborative technologies South Tyneside displayed no visible use of collaborative technologies and no technologies were discussed or suggested. At one meeting, however, there was some general discussion on the strengths and weaknesses of the creation and use of websites. This discussion lacked any strategic action on the main points discussed.

7.4.3. Networking

Community network members possess an awareness of the network society and the significance of networking to personal, social and organisational development. A number of community network members, however, criticised the lead organisations for organising network events where the scheduled networking sessions lacked focus. This was another area where both volunteers and professionals sought a more effective symbiotic relationship.

Members were also aware of the concept of meta-networks but some criticised the lead organisation for failing to facilitate more effective networking of existing networks and failing to create appropriate cross-sector networks with other organisations within the Local Strategic Partnership. Many volunteers believed that professionals were creating and manipulating social networks for personal ends, in particular, to progress individual career paths in other sectors. Dialogue took place on networking as an effective means of communication. Questions arose, such as:

1. How do we monitor and evaluate this?
2. If it is about dialogue (about creating new meaning from old), how do we learn from this reforming of ideas?
3. How does the use of language and abundant acronyms dilute the effectiveness of dialogue?

Finally, questions arose concerning the function and form of networks:

1. What are the implications for centre-periphery relations of locally-based events?
2. How do we know that we are attracting or inviting the most appropriate people?
3. Should we be creating a network which will act as an intelligence-gathering mechanism for the Local Authority?
4. Is this part of a partnership or some other structural arrangement for joint working?

Networks need to ensure a level of sustainability. Given the nature of the network's relationship with the Local Authority, there is a need to organise networks into geographical areas. There was a perceived need to map out existing networks; to list geographical communities, communities of interest and practice to be included in a wider meta-network.

At the moment, organisations are struggling to understand the range of nodes and connections within the network. The relationship and knowledge sharing between key players is crucial to network effectiveness. There is a need to create networked links between various infrastructures within and between organisations and across partnerships. Core groups need to facilitate network development rather than lead it. There is need to create mechanisms which build on the best practice that already exists

within the meta-network, at the moment, levels and types of access vary and impact on the effectiveness of the community network. There is an awareness that parochial attitudes to other networks is evident. This could be due to the sense of civic pride in and compounded by a lack of knowledge of how other networks operate. A real need has been identified to train network members on network development.

The Local Authority is seen as a knowledge sharing boundary to the network. The network needs to know more about what the Local Authority is doing, why and how. There is clear evidence of a disjointed approach between all partners due to a lack of agreement on knowledge sharing protocols, that is, who should share what, with whom and when. There is a powerful sense of friendship and familiarity between members as a number have known each other for a number of years in a range of roles. There is a widely-held belief in the strength of consensual and informal procedures. Dialogue, if it is to be powerful, needs to be shared and not dominated by veterans.

Professional networks tend to discuss strategic issues and tend to be most effective at impacting and interacting with partners, in particular, the Local Authority. However, there are constant complaints about use of acronyms and jargon by partners who appear to use this as a tactic to exclude the Third Sector from key areas of dialogue. Networks are a means of empowering communities, building the capacity for change and increasing levels of participation and representation. The meta-network facilitates other Third Sector networks. Growing and piloting networks is a means to the greater end of meta-networking existing networks. There is a need to bring together diverse elements from the Sector to create a common understanding of issues. This will develop new networks. In its simplest form, the purpose of the network is to inform individuals and organisations what is happening in terms of change in the Sector.

There is a need to share information and knowledge and identify issues for knowledge exchange which will lead to the development of appropriate and effective strategies. The creation of a mechanism through which the knowledge and understanding of engaging communities in developing their future creates change within existing structures. Steering the development of meta-networks and developing credible community networks within this superstructure, i.e., networks that communities trust. There is need to create a network of community networks, drawing on existing expertise and creating a community development 'think tank'. The purpose of networking is to

create involvement through activities and events. A temporary group has been established to provide direction to the community network programme until a representative core group can be elected. The composition of the group is currently ad hoc and therefore it is difficult to establish uniform meaning of purpose.

Entry to the network appears to occur in four ways:

1. By being part of the core group.
2. Personal invitation by a member of the core group.
3. By nomination as a representative of an organisation.
4. Through self-selection.

Some networks create a two-tier membership with a primary tier of organisational membership and a secondary tier of individual membership. Methods of feedback are dependent upon the nature of individual, organisation and type of organisation membership. Clearly, individual members are not obliged to feedback to an organisation but many enjoyed sharing the knowledge gained from the network with other associates interested in its work. There is a general expectation that representatives of organisations would feedback to the parent organisation. Some Chief Executives of larger organisations, however, do not appear to be engaged in feedback. Some of the larger organisations expect formal written feedback at management level while others expected members to feedback to an appropriate sub-group. Some individuals flag up key issues with a number of groups and they tend to do this at face-to-face meetings because people can ask questions and discuss issues as appropriate. Network members feel most comfortable with this process.

Opinions on network effectiveness vary depending upon where a member was located within the network. Those at the core, and, to a lesser extent, those in the active space of the network, saw the meta-network as a key concept which could support and develop other networks. Those at the periphery tended to see their own networks as marginalised by the meta-network and not taken fully into account in the community network's development. Understanding the relationships, within the community network, between networks and networks of networks seemed an unnecessary complexity to some.

A number of respondents felt the effectiveness of the network was 'average'. One respondent pointed out that this apathy could be due to 'network fatigue' (being involved in too many ineffective networks, previously). Meta-network effectiveness varies between networks as some networks are not fully committed to network development. There appears to be a lack of leadership and innovation. There is also an over-reliance on organisational processes rather than key issues as they arise.

Appropriate networking of knowledge is relative to the agreed procedures and protocols for sharing, the degree of collaboration and the effectiveness of knowledge transfer. The effectiveness of knowledge sharing is relative to jointly agreed procedures, platforms and protocols for joint working. Sunderland Community Network had drafted a protocol document for knowledge sharing in formal networks with which it was associated and this protocol was amended and adopted by other networks. Such procedures, platforms and protocols are difficult to monitor and evaluate within loosely associated networks. Overall, most respondents expressed the view that communities were moving towards a shared vision of knowledge sharing, but, at present, seemed to be at the point of agreeing upon a shared set of aims and objectives driven by the Community Empowerment Fund guidance.

Communities of practice, in all their various forms and functions, work effectively as a knowledge sharing platform but not all members have similar realisation of their full potential, so, they appear not to open up to the knowledge sharing process. There is, however, a collective understanding that a community of practice is a good working model which needs to be progressed through effective community networking

One way of achieving a shared vision may be through structuring communities through equal representation across a wide geographical area which increase the range of best practice to be shared. There is a shared understanding of what constitutes a community network but not necessarily of the role of various communities of practice despite a number of network members being highly specialised on key issues.

There are several different visions and the network appears to have a role in unifying the vision of the various themed communities. There are very real geographical tensions which are difficult to overcome as they are deeply embedded and have historical backgrounds in the industrialisation process, for example, the roots of shipbuilding and

coal-mining have created divisions between urban and rural areas. As a result of these tensions, the various communities need to clarify the concept of a community network before they move to a position of a shared vision.

The range of organisations involved in the communities is not as wide as it should be so lacks a shared vision until the organisational knowledge base has been widened. A number of debates have illustrated the different perspectives on approaches to community development which are necessary for creating a climate of trust which promotes a shared vision. Networks are organic and the communities of practice which flow from it should reflect this. They are constantly changing, emerging and reforming. It is important to remember that new players do not necessarily require total participation in all activities of the network.

Jointly organised events between partners are important in developing a shared vision. They tend to promote a strong community spirit and a climate of trust and knowledge sharing. However, there must be an awareness that it is difficult to create a template-based shared vision; it needs to be created through dialogue which makes the vision meaningful for participants.

Distribution of any shared vision or strategic view is skewed between veterans and newcomers. Veterans have a wide and varied range of knowledge, skills and experience in specialist areas and newcomers need to access this. There is an awareness of the need to share knowledge, in different ways, at different levels and develop online and offline systems for achieving this successfully. This has considerable implications for how training is organised.

Collaborative working is crucial for the creation of collective knowledge. The collective knowledge contained within a community is the sum of all the parts of individual knowledge held by the domain. Individual and collective knowledge tend to combine in a climate of reciprocity and trust.

A lot of the knowledge shared is of a 'surface' nature, that is, on a practical level, lacking insight into the nature of processes. Communities are exchanging a lot of detailed information on who does what, where and when rather than gathering knowledge and intelligence on why knowledge sharing is structured in organisations

and partnerships. It is clear that collective knowledge is being shared better informally than formally as both experienced and inexperienced people tend to 'loosen up' in informal settings.

Given the above, there is a need to widen membership to tap into the vast pool of collective knowledge that exists. It is clear that community development principles are shared as collective knowledge with all not just with fellow community development workers. Reciprocity and trust is being built but this is a slow process which could be assisted by the drawing up of a local learning plan with a key driver being greater knowledge sharing. While community networks lack an induction process for newcomers, they are acutely aware that there is a vast reservoir of knowledge held by experienced members that they need to feel they can tap into as appropriate. However, many of the events are in community development jargon and tend to alienate newcomers, so, negate equitable practice. It is clear that there are large clusters of knowledge to share at many levels, however, only a certain amount is relevant at any one time. There is an ongoing need to explain the purpose of the network to some as centre-periphery relationships are very difficult to manage.

7.4.4. Learning

To learn from individual, organisational and collective knowledge sharing, knowledge needs to be stored and monitored appropriately while, at the same time having effective means of knowledge retrieval.

Many of the communities under investigation were emergent, and, as such, the only evidence of group learning demonstrated was the learning from the organisations engaged on a particular theme, such as, transport or health. So the collective knowledge of the parent organisation tended to be drawn into the community through the individuals involved. On some issues, members were often competitive over the knowledge of best practice they enjoyed.

There is informal sharing of information and contacts, but, there is a need to know what's going on and its relevance. Better quality facilitation is needed to enable learning. Learning programmes need to be co-ordinated, consulted upon, effectively monitored and evaluated.

There is a very steep learning curve which needs to be formative, flexible and changeable. Knowledge and information changes hands at a very rapid pace, informally and formally, across a range of platforms. The legitimacy of the core group is always in question.

The network is a learning experience in itself and this is constantly being reinterpreted and regurgitated through the various communities. Many certainly want to learn from others wide range of knowledge and skills. Group learning is concerned with learning skills, identifying skills already possessed, learning about other people's skills and learning about what is happening elsewhere. There is a lot of evidence of people building on existing capacity for group learning. People are presenting themselves as sources of knowledge very effectively. The process of learning is about accumulating knowledge and creating meaning from situated experience.

Networks are aiming to achieve some form of group learning across and within communities. The effectiveness of this needs an independent assessment working to a tightly-defined brief. Networkers frequently see themselves as travelling a journey, where they need to make the right connections. Learning as a network also involves balancing the learning needs of veterans and newcomers. There is a need to promote participatory democracy but there are many, many paradoxes. Group learning involves identifying skills and learning from others. Learning takes place at different levels; the higher the level the more difficult it is to understand what needs to be learned. There is a lot of evidence of people building upon existing capacity for learning.

Group learning provides an opportunity for empowerment and enablement. There is a need to bring newcomers up to speed by providing mentoring within forums. Group learning involves both learning about the network and learning how to network. It is a shared experience which is what makes it different from individual learning.

Seasonal 'schools' are a good example of informal learning practices but it needs to be monitored effectively. Communities are engaged in a process of learning by doing. Many of the communities under investigation were emergent, and, as such, the only evidence of group learning demonstrated was the learning from the organisations engaged on a particular theme, such as, transport or health. So the collective knowledge of the parent organisation tended to be drawn into the community through the

individuals involved. On some issues, members were often competitive over the knowledge of best practice they enjoyed.

There is informal sharing of information and contacts, but, there is a need to know what's going on and its relevance. Better quality facilitation is needed to enable learning. Learning programmes need to be co-ordinated, consulted upon, effectively monitored and evaluated. Networks are often in a constant state of capacity building but once a certain capacity is achieved the scenario tends to change. A mentoring process is crucial for newcomers, or, at the very least the least skilled newcomers. Networks need to be open and enabling sharing the experience of what they do, how and why they do it.

There is a very steep learning curve which needs to be formative, flexible and changeable. Knowledge and information changes hands at a very rapid pace, informally and formally, across a range of platforms. The legitimacy of the core group is always in question and they need to identify the transferable skills of the key players.

7.4.5. The way forward?

Given the above, if we re-visit Figure 7.1 it is possible to refine the paradigm further by recognising that the phases of this initial model can be re-defined in terms of their function within the final draft paradigm:

1. The formatting phase provides platforms for knowledge sharing.
2. The networking phase offers the opportunity to network existing networks and develop new networks.
3. The learning phase offers a means of creating a learning organisation and a range of collective knowledge sharing processes.

The formatting phase can be sub-divided into three areas, namely, the origins of knowledge, the relationships between knowledge sharers and the platforms on which knowledge is shared.

The source of the origin of knowledge has a defining influence on how knowledge is formatted within the Sector. Knowledge is shared with a wide range of agencies in varied formats and not only are computer files formatted differently by some agencies

but hard copy documents are often structured in differing ways. There is a need for a system of validation of the origin of knowledge and its suitability for use by the Sector. If the format needs to be changed or editing needs to take place provision should be made for this by the appointment of a knowledge gatekeeper.

The complexity of relationships within the Sector compounds the difficulties of formatting knowledge as it is shared within a myriad of meetings between individuals, organisations, teams and partners. Project-based relationships are task-specific or consist of communities of interest and practice and provide their own knowledge sharing problems. Furthermore, the mix of full and part-time professionals and volunteers implies the need for knowledge sharing between volunteers to be co-ordinated effectively suggesting the appropriateness of a volunteer knowledge co-ordinator. All other relationships are reliant upon the existence of key change management and innovative drivers within organisations which often remain the responsibility of powerful, charismatic leadership; such leadership being an essential component of building social capital within and between Third Sector organisations.

The role of knowledge weaving between various knowledge sharing platforms is also essential to the Sector. Individuals and organisations need to be aware and keen to weave the interfaces between face-to-face and collaborative technologies as well as intertwining the many documents produced that are relevant to how knowledge is shared.

The networking phase can be sub-divided into three areas, namely, sharing, transferring and collaborating with knowledge. The maximisation of networks as knowledge sharing platforms is relative to the levels of reciprocity and trust embedded in protocols, processes and procedures. In order to establish high levels of reciprocity and trust mutual agreement needs to be sought between individuals and organisations which is reflected in the various processes in which the network is engaged. Such agreement can and should form part of protocols between networks for knowledge sharing in meta-network formations. Within the Sector, there is a need to create a role of network co-ordinator to ensure that such protocols reflect the expectations of network members.

Successful patterns of collaboration for knowledge sharing are reliant on the successful interface of collaborative technologies between various Third Sector partners. The

Sector should be aware of and prepared to understand the use of collaborative technologies by other sectors; similarly other sectors should be aware of the role played by collaborative technologies by the Third Sector. It is possible to achieve this high level of cross-sector collaboration by regular events highlighting current and future usage of technologies within partnerships. Such collaboration could be enhanced through a recognised role of partnership co-ordinator.

The final area of networking is concerned with the transfer of hard and soft data between various nodes to ensure equity in knowledge sharing. The major concern in this area is the appropriate and effective formatting, updating and revision of all knowledge held within the organisation. While it is considered essential, in most Third Sector organisations, to have full or part-time Information Officer, in order to facilitate the sharing of knowledge such posts should be extended to incorporate the role of Chief Knowledge Officer. Their primary task would be to articulate a knowledge management programme. This task is concerned with two main functions:

1. making individuals aware of the nature and added value of knowledge;
2. and, selling the concept of knowledge sharing to the organisation.

The learning phase can be sub-divided into three areas, namely, monitoring, storing and retrieving knowledge. It is the most complex phase of the model representing the means of transforming individual into collective knowledge and collective knowledge into individual knowledge.

In terms of monitoring knowledge, it can be found embedded in projects, partnerships and individuals. Project monitoring takes place around various elements of project development, such as, resourcing, time management, outputs and outcomes. In order to gain knowledge from project monitoring it needs to take place at every level and performance monitored against agreed templates. These templates can then be reflected upon and evaluated in terms of lessons learnt and the knowledge shared within and between organisations. Partnership need to be monitored in terms of their meta-governance context and the symbiotic relationships that exist between the various partners. Individuals need to be monitored in terms of their professional performance and career development paths. The role of monitoring, within the Sector, is a key role which needs to relate directly to the role of the Chief Knowledge Officer.

How knowledge is stored within an organisation is relative to how the knowledge can be shared. If knowledge is stored digitally then it means that it can then be output in other forms. Hence, the digital storing of knowledge makes it an effective learning platform for the organisation.

How knowledge is retrieved has implications for how it is shared. Effective monitoring and storing of knowledge ensures that it can be retrieved in a flexible and accessible manner.

The learning phase of knowledge sharing has significant implications for organisations and suggests the need for a learning co-ordinator working to a constantly updated learning plan.

In conclusion, taking the above discussion into account results in the revised working paradigm (Figure 7.2.) shown below.

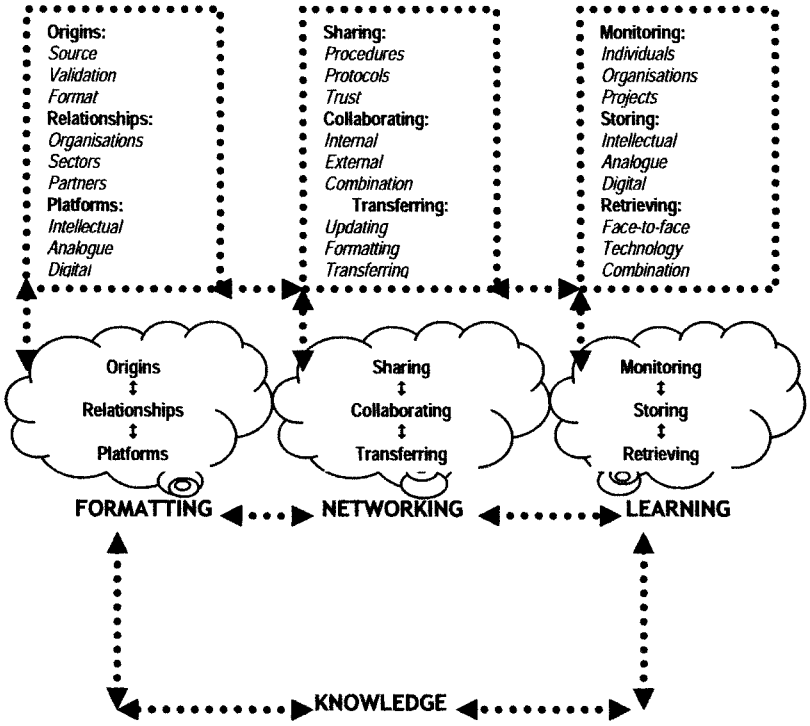


Figure 7.2 A revised working paradigm of Third Sector knowledge sharing

7.5. Summary and conclusion

The overall aim of this research has been to explore the how a working model of knowledge sharing in the Third Sector may be designed and developed.

A major objective has been to identify the added value of knowledge sharing to organissations. The proportion of added value is relative to a number of factors. The first is the skill levels of those using the technologies which vary according to where individuals and organisations are located within a community or a social network. Effective face-to-face networkers are also effective electronic networkers and as they network online they tend to develop higher skill levels. Secondly, the added value tends to vary according to the levels of reciprocity and trust which exist in the community or network. Where levels of reciprocity and trust are high there is a tendency to utilise the informality of email to a high degree. Thirdly, added value varies between 'newbies' and 'veterans' with 'veterans' acquiring an integrated and seamless approach to the use of collaborative technologies which is not evident in 'newbies'.

There is a significant difference between how respondents view formal and informal knowledge sharing platforms. There is a high propensity to believe that informal knowledge sharing platforms, such as, meal breaks and meetings in public houses were most effective in sharing knowledge between key individuals. On the other hand, formal knowledge sharing platforms, such as, meetings and seminars were too formalized by a set agenda. A number or respondents, however, expressed the view that conferences, away-days and residential courses afforded the ability to share knowledge in both a formal and informal setting.

The added value of collaborative technologies to communities of practice is relative to the existence of a shared vision amongst its members, the creation of a body of collective knowledge, the prevalence of a sense of community, the creation of learning networks, a set of common practices and a culture of information sharing.

In terms of shared vision, the Third Sector tended to create a high level of added value through the use of collaborative technologies. This may be caused by the Sector seeing itself as developing rapidly on a strategic level and being used to creating a shared vision amongst organisations and individuals. The Local Strategic Partnership having had a form of shared vision from central government imposed on it tended to rely on

Local Authority officers to guide its strategic development and little added value was created.

Three clusters of collective knowledge were evident, that of the Third Sector, community development and regeneration. There is a body of collective knowledge on how the Third Sector operates, as a result, there is a tendency to utilise email, in particular, as a means of adding value to discontinued face-to-face knowledge sharing. A major collective knowledge cluster is that of community development which has amassed a wide range of knowledge in a variety of nodes both on-line and off-line. Another significant collective knowledge cluster is that of regeneration but it appears that little use of collaborative technologies is made to add value to face-to-face interaction as most practitioners tend to prefer face-to-face interaction.

In terms of creating a sense of community, email was used as a major source of added value to face-to-face interaction as a means of attracting new members to the community, legitimising peripheral participation in the community, re-assuring 'newbies' of their value to the community and, linking 'newbies' with 'veterans'.

Third Sector networks, for the provision of both formal and informal learning, were created through the combined and often seamless use of Internet, Wide Area and Local Area Networks in cross-sector partnerships across a varied range of organisations. Those at the core of the various emergent communities were digitally tied into the formal learning networks while, at the same time, utilising the technology to create new informal networks of learning.

The political activity of the various single and multiple issue communities of practice can be divided into three phases of common practice. Firstly, agenda setting, secondly deliberation and finally policy formulation. It is possible to see emerging patterns of the use of collaborative technologies to add value to these three phases. This activity was supported by the emergence of an information sharing culture in the Third Sector where greater use was being made of databases, emails and websites.

The added value of collaborative technologies to social networks appears to be relative to the strength of network ties, the degree of separation between individuals and organizations and the existence of structural holes. Network ties can be divided into

strong, medium and weak with strong ties being dyadic and weak ties issue-based and transient. In this study, evidence of use of both strong and weak ties was discovered between both people and organizations. The degree of added value is relative to the technological skill base of the people and organisations in these ties. In strong ties, the use of collaborative technologies took distinct forms, such as, sending files as email attachments, sharing references to documents of interest and sharing URLs of key websites. Electronically-supported weak ties were manifest in the relationships between respondents and those they deemed to be experts in a particular field.

The concept of degrees of separation has passed into the realms of popular culture. Most respondents saw the value of contacting someone electronically who could connect them to an appropriate person. In terms of structural holes, much discussion took place on filling structural holes particularly by sharing key contacts with each other by email, sharing contact databases between organisations and across partnerships and creating web pages where network members connections were listed.

Community networks have begun to demonstrate a significant understanding of the relationship between mental and physical space. They are also differentiating between use of online and offline spaces. The continuing emergence of patterns of social networking is symptomatic of the ability of members to see the power of meta-networks. Moving in meta-networks also enhances the comfort factor of operating within social networks where meta-networks are clearly used as a means of changing organisational culture. Furthermore, the implications for meta-networks of the complexity of meta-governance is far-reaching and the potential for adding value through the use of collaborative technologies is maximised.

A working model of knowledge sharing within communities of practice has been created based upon principles of communicating, accessing information, achieving visibility and collaborating with technologies. In this model, the activities of communities of practice have been divided into formatting (individual, analogue and digital), networking (communication, collaboration and information) and learning (emotion, action and interaction). Such a model could be used to examine how emergent communities of practice exchange knowledge across their component parts.

8. Reflections on the research process and practice

8.1. Introduction

This chapter begins with reflections on the chosen methodology and is followed by sections on the fieldwork process and the project's timescale. Overall reflections on the methodology are then summarised. The following section makes observations on the limitations of the research. In the next section, the contribution to knowledge of the study is highlighted. Finally, suggestions are also made for further research.

8.2. Reflections on methodology

Two primary factors influenced the chosen methodology for this study: sourcing the literature review and use of the Internet as a research tool. Detailed scoping for the literature review was necessary due to the lack of literature on Third Sector communities of practice, social networks and their use of collaborative technologies. Initial Internet-based research of discussion forums was also necessary due to the relationship between formal and informal communities of practice and their rapid emergent nature in the Sector.

8.2.1. Sourcing the literature review

It was recognised, from the outset, that the availability of secondary literature on communities of practice within the Third Sector was limited. A number of academics, specialising in communities of practice and social networks were approached for their views on this. Most had not seen any work in this area apart from some limited, unpublished, documentation from Third Sector organisations in Canada and the USA.

8.2.2. The Internet as an initial research tool

The Internet provided a useful source of secondary material, such as, on-line literature reviews, journals, articles, theses, on-line archives and discussion groups. It not only proved to be an invaluable starting point for the study but also as an effective tool for reviewing the wide range of secondary material. The value of the Amazon website increases daily and its accessibility is evident through on-line comments from known specialists in communities of practice and social networks as well as those specialising in social software. Not only can a rapid overview be gained of the sum total of works published but there are also some useful reviews of works and hyperlinks to related topics. The Internet is often considered an imperfect research tool, due to the poor

quality of the information, however, it can be effectively utilised as an initial baseline for a comprehensive literature review.

The Internet also provides rapid access to on-line journals and articles. An interesting feature, in terms of knowledge sharing, is the creation, by some specialists, of on-line archives. These archives share with the user many references these specialists are using in their most recent research work. Interestingly, several of these archives also allow for on-line discussion of the chosen research topics.

Finally, the Internet also provides access, via proprietary search engines, to a number of discussion groups considering the key concepts and various aspects of communities of practice and social networks. Two discussion groups, in particular, proved useful, namely, ComPrac and the Community Informatics Researchers List. ComPrac was established by a group which included Etienne Wenger while the Community Informatics Researchers List included a number of researchers studying the impact of social networks on community development in a global context.

8.3. Reflections on methodology

8.3.1. Strengths and weaknesses of case studies

Advocates of case studies tend to point out that case studies produce much more detailed information than that available through a statistical analysis. They also highlight that while statistical methods might be able to deal with situations where behaviour is routine, case studies are needed to deal with creativity, innovation, and context. Critics, on the other hand, argue that case studies are difficult to generalise because of inherent subjectivity and because they are based on qualitative subjective data, generalisable only to a particular context.

Generally the strengths of case studies are considered to be their degree of flexibility and emphasis on context while the weaknesses are considered to be inherent subjectivity, high investment and ethical considerations.

The case study approach is a comparatively flexible method of research in comparison to other methodologies. The project design emphasises exploration rather than prescription or prediction and researchers are comparatively free to discover and address issues as they arise. In addition, the less rigid format of case studies allows

researchers to begin with broad questions and narrow their focus as the project progresses rather than attempt to predict every possible outcome.

In seeking to understand as much as possible about a single subject or a small group of subjects, case studies specialise in deep data collection and rich picture formulation. This involves drawing together information based on a series of particular contexts that can give research results a holistic overview. This emphasis can help bridge the gap between abstract research and concrete practice by allowing researchers to compare first-hand observations with the quantitative results obtained through other methods of research.

The case study is often stereotyped as the weak sibling among social science methods and is often criticised as being too subjective. Researchers who undertake case studies are often regarded as having deviated from their academic discipline and their investigations as having insufficient precision, objectivity and rigor. Opponents also cite opportunities for subjectivity in the implementation, presentation, and evaluation of case study research as the approach relies on personal interpretation of data and inferences. Results may not be generalisable, are difficult to test for validity, and rarely offer a problem-solving prescription. Simply put, relying on one or a few subjects as a basis for extrapolations runs the risk of inferring too much from what might be circumstance.

Case studies can also involve learning more about the subjects being tested than most researchers need to know. Often, much is learned about the subject's educational background, emotional background, perceptions of themselves and their surroundings and their likes and dislikes. This results in a high level of personal involvement of the researcher which may well impact on the final outcome.

Researchers conducting case studies need to consider certain ethical issues. Many case studies are financed by organisations who have, either directly or indirectly, power over both those being studied and those conducting the investigation. Such conflict of interest can hinder the credibility of the study. Furthermore, the personal integrity, sensitivity, and possible prejudices of the researcher need to be taken into consideration. Personal bias can filter into how the research is conducted, alternative research methods used, and the preparation of surveys and questionnaires. A common complaint in case study research is that researchers change direction during the course of the study

unaware that their original research design was inadequate for the revised investigation. The researchers leave unknown gaps and biases in the study, so, to avoid this, researchers should report preliminary findings so that the likelihood of bias is reduced.

In this study, the three community networks were selected to provide essential comparisons and contrasts. Newcastle, which sees itself as the regional capital also sees its Third Sector as a national example of best practice. It has the largest Third Sector of the three areas within the region with approximately 2,000 organisations operating at any one time. Sunderland and South Tyneside's Third Sector are smaller, in comparison, with around 500 to 1,000 organisations in operation. Sunderland was, at the time of the fieldwork, the only area with a Third Sector organisation solely responsible for strategic development of the sector in VOICES. Both the Healthy City Project in Newcastle and STRIDE, in South Tyneside, provide a range of products and services other than strategic development. Sunderland Community Network covers the largest geographical area in the region and has the largest population. South Tyneside, in comparison, is small in both geography and population with a rural identity which contrasts with the urban identity of Sunderland and Newcastle.

8.3.2. Key Stakeholders

A group of key stakeholders consisting of representatives from each of the lead organisations within each community network was established at the beginning of the project. Initially, the idea of using a group of key stakeholders for the project proved to be a sound one. However, as the project developed stakeholder interest declined for a number of reasons. Among the reasons were other commitments and the relatively high level of turnover of Third Sector staff. Chief Executives of the lead organisations showed considerable interest in the research question and the aims and objectives of the project but, due to other commitments, were unable to see the project to its completion. Research papers which were produced to cover each case study and were presented, in turn, to each case study were well received.

The final feedback session resulted in the attendance of only four of the original fifteen stakeholders. Due to the unrealistically high levels of commitment to the project expected of the stakeholders this is, perhaps, unsurprising. In the beginning, when stakeholders were informed of the research proposal, they expressed a great deal of interest and enthusiasm. It is difficult to conclude whether this enthusiasm waned due to

the length of the study or was, perhaps, forcibly re-directed into other areas of work by the stakeholders.

In terms of the use of collaborative technologies within communities and networks, the key stakeholders, from the lead organisations were chosen, in part, for their:

- appropriate level of computing skills;
- capacity to upgrade existing hardware and software;
- and, their vision of the future application of the electronic delivery of services;

The key stakeholders who attended the final feedback session for the project showed that they realised the significance of the above criteria in the discussions that took place on the future development of communities of practice and social networks. As a result, these organisations may well prove useful in further research in this area.

8.3.3. Designing a data collection protocol

Designing a formal case study data collection is the first step prior to undertaking fieldwork. It is the protocol that provides the reliability that is required of all research. Yin (2003a) suggests that the researcher must possess or acquire the following skills:

- the ability to ask good questions and to interpret the responses;
- be a good listener;
- be adaptive and flexible so as to react to various situations;
- have a firm grasp of issues being studied;
- and, be unbiased by preconceived notions.

Once the protocol has been developed and tested, it puts the project into its second phase which is the actual execution of the protocol with an organisation. In this phase, the primary activity is that of data, information and knowledge collection. The protocol is designed to address the types of evidence that are available in the case study. In case studies, data collection should be treated as a design issue that will enhance the construct and internal validity of the study, the external validity and reliability (Yin, 2003a). Most of the fieldwork methods described in the literature treat data collection in isolation from the other aspects of the research process (Yin, 2003a), but that would not

be productive in case study research where data needs to be organised within the context of the case study.

8.3.4. Piloting the protocol

Following the design of the protocol, it was piloted prior to the development of the fieldwork as a test of its effectiveness as a research tool. In this instance, the pilot was undertaken with Newcastle Healthy City Project who proved amiable in assisting the process and it also assisted them in ordering their own data more efficiently. The process proved illustrative of the ad hoc nature of data collection, storage and retrieval of many Third Sector organisations.

One particular aim of the Community Empowerment Fund Guidance was to create a unified system for information and knowledge management. Some organisations responded more quickly than others to this with Sunderland Community Network being at the forefront of the drive to create a knowledge management system for Third Sector organisations in the area.

8.3.5. Semi-structured questionnaire

Using one of the key stakeholders (Newcastle Healthy City Project) as a pilot for the survey did prove problematic. The stakeholders were fully briefed as to the nature of the research proposal and, as a result, had considerable understanding of the nature of the survey prior to it being piloted. This seems to have resulted in problems arising as to the design when the survey was administered to the sample as respondents tended to answer questions within the context of their understanding of the research aims and objectives. However, several useful suggestions were made on the design of the questionnaire as a result, especially with regard to the use of terminology and structure of questions. As a result of the pilot, the questionnaire was revised.

8.3.6. Key stakeholder focus group

A focus group, lasting three hours, was held with representatives of the stakeholder organisations: all highly experienced practitioners. This group considered the following six questions:

1. Is there a shared vision of a community network within your organisation?

2. Do you feel that the community network is an appropriate mechanism for sharing its accumulated knowledge?
3. Do you feel that there is a sense of community within the network itself?
4. Does the network enable learning?
5. Has the network created common practices?
6. Has the network created a culture of information sharing?

These questions were designed to reflect the six critical success factors of a community of practice (Wenger et al. 2002) referred to in the project. This assisted the process of clarifying how the stakeholders viewed themselves as practitioners. Discussion also took place on the influence of social networks on individual and organisational performance.

The focus group was poorly attended with only one of the Chief Executives of the stakeholder organisations in attendance. In the group, considerable discussion took place on gender-related issues: how women operate differently from men in communities of practice and social networks. It was felt that women were more effective practitioners and networkers than men. This is a major area of investigation beyond the scope of this study but clearly worthy of further research.

8.3.7. Feedback Sessions

A feedback session was held at the completion of the fieldwork and acted as a form of member-checking data with respondents.

The feedback session attracted only four representatives from the stakeholder organisations. However, their client groups were diverse dealing with the young, the elderly, unemployed people and health issues. The representatives of these organisations had expressed a keen personal interest in the research and had followed its progress closely. Some have kept in touch on the progression of the project since the focus group. These representatives would make a useful focus group for any further research as a result.

8.4. Fieldwork

One of the difficulties of the fieldwork period was the collection of data which proved to be of limited relevance to the final analysis. Some of this data, however, did prove

useful as background material for the researcher and also served to situate this project with regard to other potential projects. Given the relatively wide area of this research there are a number of potential research projects which could flow from it.

8.5. Timescale

Microsoft Project was used to outline key tasks, set milestones and significant dates for the fieldwork. This resulted in the fieldwork commencing and completing within the allocated timescale. This method of project management, however, did have its difficulties. For the researcher, to outline the project in this way is advantageous as it sets a timescale for the design of the paradigm, the development of appropriate research instruments, effective data collection, data analysis and document drafting. The system can prove disadvantageous to the respondents, however, as they are often unable to deliver on time due to other commitments and lack of resources.

Difficulties were experienced in retrieving survey data within the timescale. Some respondents to the survey highlighted the fact that their organisations received far too many questionnaires generally and many of these questionnaires did not appear particularly relevant to the organisation. Respondents within the focus groups and the feedback sessions found it difficult to set aside time for attending the focus groups and feedback sessions due to the lack of human resources within their own organisations. The lack of dedicated human resources within the Third Sector clearly impacts upon their ability to participate. There is an issue that some Third Sector organisations do not make effective use of volunteers as important representatives of organisational activity.

8.6. Overall reflections on the process

8.6.1. General comments

The overall aims and objectives of the project appear to have been fulfilled and the research question addressed. This would not have been possible had they not been drawn from a written research proposal, an appropriate methodology, effective data collection protocol and use of focus groups and a feedback session. The benefits of working initially from a detailed research proposal are many but in essence it assists in focusing the researchers mind and clarifying thought processes for the beginning of the research. In turn, it forms a baseline from which necessary adjustments can be made during the fieldwork.

As part of this project, the key stakeholders were consulted on its aims and objectives which were found to be satisfactory for the intended purpose following the consultation. More time could have been spent, on reflection, in involving the stakeholders in the actual development of the research proposal. It is possible that this would have resulted in smaller stakeholder group earlier in the process as this demands even more commitment on the part of both the individual and the organisation.

The study could have employed a single case study with a lesser degree of success than a combination of case studies. The combination of case studies resulted in a number of research instruments being applied, observations, a survey, focus groups and a key stakeholder feedback session. The co-ordination and comparison of the case studies and the several research instruments benefited from the production of a revisable concept map. This concept map assisted in the process of placing the data within the context of the organisational culture of community networks. This proved as invaluable as the data collection protocol during data collection, analysis, triangulation and the drafting of the final document.

8.6.2. Sequential triangulation

One of the problems encountered in this research was one that is, perhaps, common to all research in that data was recorded and collected, which, when reflected upon, was not necessary to the final analysis. The use of the data collection protocol did serve to limit the amount of superfluous data. On reflection, the data protocol could have been refined further to assist in this process.

The qualitative design of the study involved sequential triangulation where the design of the first phase of the research defined the research instruments employed in the second phase. Identification of key stakeholders who suggested areas of observation, observations which defined the content of the semi-structured questionnaire, responses to the questionnaire suggested questions for interview and the focus group and feedback session served to verify and validate the data collected.

It was important, during the fieldwork and data analysis phases to employ this sequential triangulation in a systematic manner. Cresswell (1994) emphasises five purposes of sequential triangulation research designs:

- Developmental: The first method of data collection is used sequentially to help inform the second method. In this case, observations informed the questionnaire which informed the interviews and then the focus group.
- Classic: Seeking convergence of results between different data collection methods.
- Complimentary: Identifying overlapping and differing facets of a phenomenon which may emerge.
- Initiation: Acting upon contradictions and allowing fresh perspectives to emerge.
- Expansion: The variation of methods adds scope and breadth to the study, creating a rich picture of a problematic area.

The developmental purpose was served by using the data collected through observation, questionnaires and interviews as a basis for discussion with the focus groups which were the first instrument of the collective phase of member checking. Some problems were experienced, at this stage, with the differing levels of the conceptual ability of the respondents. Ability ranged from those who were aware of communities of practice and social networks through formal and informal learning to those who considered themselves 'allergic' to these abstract concepts. Time was spent with the focus groups explaining the nature of these concepts and how these concepts had been used to create a baseline for gathering the breadth of qualitative data necessary for analysis.

The classic, complimentary and initiation purposes were fulfilled by a process of converging, contrasting and separating differing types of data. Triangulating data between differing paradigms can prove difficult. The researcher also has to move between platforms of data collection which are gathered in different formats. It was useful, therefore, to summarise the results of the survey and present a qualitative summary to the focus groups rather than presenting respondents with large tables of frequencies and cross-tabulations as in a quantitative methodology. This allowed focus group members to reach individual rather than collective conclusions on the meaning of the data. Once this understanding was achieved, members were asked to reflect upon the data in terms of their own organisation.

In terms of the purpose of expansion, the use of triangulation did serve to add scope and breadth to the study. This purpose of expansion was also clearly supported by the

author's experience in using a range of methodologies as part of his work, in a research capacity, at Newcastle City Council over a fifteen year period. The process of expansion is similar to the process of Soft Systems Methodology (Checkland 1981) where rich pictures are compiled through constant expansion of areas of investigation. The researcher also has experience in teaching the principles of Soft Systems Methodology at Northumbria and Open Universities.

8.7. Limitations of the research

Limitations of the research were noted in four areas:

- Context of meta-governance.
- Complexity of relationships in meta-networks.
- Level of staff and volunteer turnover.
- Wide and varied nature of organizations.

8.7.1. Context of meta-governance

The context of meta-governance in which all community networks operate proved difficult to explore in detail. It did, however, provide a useful template for interpreting phenomena. The nature of mature democracies is such that they are in a constant state of flux, attempting to revise previous practice while integrating new best practice. The context is also subject to the various processes of 'glocalisation' (Wellman 2002a) where governmental agencies are operating in an environment which is globalising while, at the same time, localising. It is interesting to note that, in this study, the majority of respondents who conceptualised the climate of meta-governance were environmentalists familiar with the concept of 'thinking globally and acting locally'.

8.7.2. Complexity of relationships in meta-networks

Relationships in meta-networks are complex and subject to a high degree of personalisation. One of the challenges in this research was persuading respondents to disclose the true nature of these relationships. For various reasons, respondents were protective of their contacts largely for personal career reasons or for the level of expertise they enjoyed from a particular contact. It is difficult to see how this can be overcome.

Leider (2007) also notes that once complex network relationships are established, nodes quickly become friends and enter into forms of dyadic relationships where reciprocity and trust become enforced. There was some evidence of this, particularly between professional fieldworkers and academics, but it was not fully investigated.

8.7.3. Level of staff and volunteer turnover

The Third Sector has a reputation for relatively high levels of staff and volunteer turnover. This was found to be true in this study. The impact of the high level of staff turnover resulted in difficulty in following all respondents through the various stages of the methodology (observation, questionnaire, interview and focus group). A relatively small number of respondents completed all parts of the process.

Considerable thought was given to using professionals on fixed short-tem contracts and time-limited volunteers as respondents. Again, these areas of engagement were also subject to relatively high levels of staff turnover.

8.7.4. Wide and varied nature of organisations

The Third Sector consists of a wide-ranging collection of organisations dealing with many different groups of people frequently sharing a common set of values or beliefs on a particular issue. It is possible to divide the Sector, perhaps, falsely, into caring and campaigning organisations. However, rarely is the division so simple as some are caring on a single issue, others on a range of issues, some campaign on a single issue while others campaign on a range of issues. Also, some organisations are a combination of caring and campaigning roles.

Given the nature of this study, it was necessary to generalise the concept of the Third Sector while simultaneously acknowledging the complexity of organisational expertise. It would be useful, however, to make a comparison between caring and campaigning organisational use of collaborative technologies as there is an assumption as the use would be different.

8.8. Contribution to knowledge

The research question states:

> *To what extent does the use of collaborative technologies in communities of practice and social networks, in the Third Sector of the North East region, add value to face-to-face knowledge sharing and how may this be measured?*

In the light of the research question, this thesis makes a significant contribution to knowledge of the Third Sector in North East England by providing:

- A detailed exploration of how knowledge sharing takes place in Third Sector communities of practice.
- An initial assessment of the added value of collaborative technologies to face-to-face interaction in the Sector.
- Analysis of the relationship between emergent, informal and formal communities of practice.
- Understanding of the relationship between communities of practice and social networks.
- The design and development of a working paradigm of Third Sector knowledge sharing.

8.8.1. Exploratory work into knowledge sharing

In the literature review, KPMG's working definition of knowledge was highlighted as appropriate to this study:

> The information contained within the organisation about customers, products and services etc., which is contained within people's minds or filed in analogue or digital format. (KPMG 1997: 5)

The knowledge sharing process in the Third Sector was previously unexplored. This research has created an understanding of this knowledge sharing process by analysing information and knowledge flow across various platforms in the context of meta-governance in which the Sector operates. It has highlighted the complex relationship between emergent formal and informal communities of practice and intricate meta-networks suggesting key areas where and how knowledge is shared. This exploration has led to the construction of a working model of knowledge sharing within communities of practice (see Figure 7.2). This is an important practical outcome of the

study and it is expected that Third Sector organisations will be able to make use of this model in order to enhance organsational knowledge sharing performance.

8.8.2. An initial assessment of the added value of collaborative technologies to face-to-face interaction in the Sector

No previous assessment has been made of the added value of collaborative technologies to face-to-face interaction in the Sector. There has been a propensity to view collaborative technologies as a purely technological solution to communication problems without relating these technologies to how they add value to traditional ways of working.

The study has acknowledged that the Sector has appropriate, effective and well-established traditional working methods but the integration of collaborative technologies has proved to be a difficult area for the Sector to adopt. By assessing the several areas where added value may occur, an indicative baseline for further research has been created.

An area of major investigation suggested is not only the appropriate and effective integration of technologies into the Sector but also the interface of the Sector's use of these technologies with other sectors. The research has shown a range of incongruities in the use of technologies in all sectors. This incongruity clearly impacts on the process of knowledge sharing within and across organisations.

8.8.3. Analysis of the relationship between emergent, informal and formal communities of practice

Similar to the above, no analysis has previously been made of the relationship between emergent, informal and formal communities of practice in the Sector. The Sector operates in a complex array of communities of practice due to the varied patterns of governmental and non-governmental partnerships which exist.

As a contribution to knowledge, an analysis has been made of this relationship based upon the detailed model of function, form and content of communities of practice formulated by Wenger et al. (2002). It would appear that although this model has been applied to private and public sector organisations, there has been no application of this model to the Third Sector. Application of the model in this way not only adds an

academic contribution to knowledge but also contributes to the knowledge base of the Sector.

8.8.4. Understanding of the relationship between communities of practice and social networks

A number of studies has suggested a relationship between communities of practice and social networks and the implications of this relationship for situated learning. However, these studies have either been of communities of practice or social networks. There does not appear to have been an attempt to comprehend this relationship in an integrated approach. This study has observed the interface between communities of practice and social networks. It has created an initial understanding of the relationship while, at the same time, highlighting the implications for learning networks.

These relationships are highly complex and in order to assess further the implications for situated learning a single case study or ethnographic methodology may well be successfully deployed to this end.

8.9. Suggestions for further research

In terms of governance, community networks are constantly affected by a duality of purpose. They are, simultaneously, attempting to build new community networks and develop new community-based infrastructures. This is a complex scenario which discourages new members from joining emergent communities of practice. This leads to detailed discussion among community network members on the process of integrating new members, and, in turn, on the use of collaborative technologies.

Given the above, this thesis has demonstrated that there are four key areas worthy of further research:

1. Firstly, the relationship between 'veterans', 'newbies' and the process of creation of 'in-groups' within a community of practice is a significant area that could be the subject of another case-based or ethnographic study. In particular, how access to knowledge, transparency of working methods and integration of new members into the community of practice can impact upon its phases of development.

2. Secondly, understanding community networks as learning networks could also be investigated using a single community of practice case study, or ethnography, to map the relationship between networks operating at a neighbourhood level and social policy networks operating within local, regional and central government.

3. Thirdly, another community of practice case study or ethnography could focus on governance as a balance between evolution and revolution. Observations and analysis could focus upon the bonding and bridging elements in the creation of social capital, the relationship between flexibility and robustness within organisations and the effective management of change.

4. Finally, the working model of knowledge sharing in communities of practice could be utilised as part of the knowledge auditing process within Third Sector organisations. An appropriate area of research would be to pilot this model with a small sample of first-tier Third Sector organisations.

Outcomes to date, as to the robustness of a dynamic model of knowledge sharing in community networks, are positive, however, the emerging models have not yet reached a significant level of maturity and the possibility of long-term success remains uncertain. A number of positive outcomes have been achieved. The first of these is the degree of progress achieved by community networks in comparison to other networks. Several factors account for this, not least of which are that some networks are considerably less well developed than a community network and some advantage is gained by the existence of a Lead Organisation, a geographically-defined organisation for strategic development of the Third Sector. The second is the creation of a body of good practice which is being shared through national umbrella organisations. Finally, the search for a dynamic model of knowledge sharing has led to a greater integration of community networks with the umbrella organisation, such as a Local Strategic Partnership allowing it to play a successful part in the cultural renaissance of the wider community.

Appendices

Appendix 1 – Data Collection Protocol

CASE STUDY DATA COLLECTION PROTOCOL:
NEWCASTLE HEALTHY CITY PROJECT

CONTENTS

INTRODUCTION
The data collection protocol outlines the process and methods used to 'drill down' through four interactive networks:-

1. Organisational learning.
2. Team function.
3. Shared individual specialism.
4. Community of Practice.

OVERVIEW

A. Objectives
1. Formulation of the patterns of development of the CoP over time and space.
2. Establishment of a series of matrices of the CoP's development within formal and informal networks.
3. Comparison and contrast of the relationships between other formal and informal organisations which interact with the COP.
4. Understanding the role of ICTs within the CoP and considering the relationship between ICTs, human resource management and organisational culture which surrounds it.
5. Comparison and contrast of how knowledge is enabled in both face-to-face and computer-mediated communications within the COP.
6. Creation of a working model of the dynamics that enable knowledge flow within the CoP.

B. Key Issues

1. Teams & CoPs comparative analysis.
2. Conformity to the LPP Test.

Definition of a CoP: "A group that shares knowledge, learns together and creates common practices."
Test 1: Legitimacy – How do they justify their existence?
Test 2: Periphery – Where do they exist in relation to their parent organisations?
Test 3: Participatory – How do they promote knowledge sharing?

3. Current stage of development of CoP
4. Groupthink Test:-

Search for evidence of:-

i. Cohesive in-groups and out-groups
ii. An enthusiastic search for unanimity
iii. A failure to appraise alternative courses of action.

5. Identification of types of communication which enable (or disable) knowledge flow:-

i. Analogue
ii. Digital
iii. FtF

6. Evidence of individual and group learning processes and knowledge sharing architecture [4].
7. Relationship between ICTs, human resource management and organisational culture.

C. Relevant Literature

1. Wenger.
2. Hildreth, Kimble & Wright.
3. Wenger.
4. Ahmed et Al.; Brown & Duguid; Collison & Parcell; Kolb; Weick; Polanyi.
5. Janis.
6. Davenport & Prusak; Brown & Duguid; Collison & Parcell.

FIELD PROCEDURES

A. Site Access

Key Contact:
Chief Executive,
NewcastleHealthyCityProject,
14 Great North Road,
Newcastle upon Tyne,
NE24PS
Telephone:+441912323357
Fax: +44 191 232 3917

B. Information Sources

1. Questionnaire

Appendix Three: Information Scoping Survey
Keywords: Teams; CoPs; Networks; Partnerships; Organsiations; Architectures.

2. Interviews
Key informants:-
Facilitator
GONE
Voluntary Sector
Local Authority
Individuals

3. Observations
Group meetings

4. Archives
NRU: Community Empowerment Fund Guidance
(Available as .pdf file from NRU website)
NRU: A KM Strategy for Neighbourhood Renewal
(Available as .pdf file from NRU website)

5. Artefacts
Emanating from:-
Development plan
Steering group guidelines

6. Documents
Minutes of group meetings.
Development plan
Steering group guidelines

C. Targets & Milestones
April 2002: Agree Data Collection Protocol with Bob Stewart.
May 2002: Issue questionnaire and analyse results.
June 2002: Conduct interviews.
July 2002: Analyse data.
August 2002: Draft report.
September 2002: Final report.

KEY QUESTIONS

A. Specific Issues

Barriers to community involvement:-

1. The lack of credibility of initiatives aiming to involve the community as a result of bad experiences in the past
2. The perceived dominance the City Council in partnership intiatives
3. The culture of decision-making in committee meetings, the format of which is familiar to officers but less so to community representatives
4. The lack of support to community representatives in the form of briefings, training, expenses etc.

Original team/project brief:-

1. To identify and use a method for choosing the community representatives for the Local Strategic Partnership.
2. To consult with black and ethnic minority groups about the best ways to use the £10,000 of the CEF earmarked to them.
3. To choose a Steering Group to manage the CEF.
4. To set up practical infrastructure to implement CEF Programme.
5. Have a pilot run of the Grants Fund.

B. Potential Data Arrays

LPP test
Characteristics of stage of CoP development
Groupthink test
Form of communication: Analogue; Digital; FtF

REPORT OUTLINE

1. Introduction
2. Methodology
3. Analysis
    - Data Arrays
    - Pattern matching
    - Explanation building
    - Time-series analysis
    - Programme logic models
    - Policy Implications
    - Replication
4. Summary
5. Conclusions

Appendix 2 – Observation Template

OBSERVATION TEMPLATE
MEETING: **DATE:** **TIME:**

DYNAMICS:	**KEYWORDS:**	**NOTES:**

Appendix 3 – Questionnaire

COMMUNITY NETWORKING IN THE NORTH EAST OF ENGLAND: PRACTITIONER'S SURVEY

(Please note that all information provided is strictly confidential)

PART ONE: ABOUT THE NETWORK

1. How did you join this network? (Please tick one box only).

Nominated by an organisation ☐ Invited by another member of the network ☐

Volunteered ☐ Other, please specify below ☐

2. If you are representing an organisation, how do you report back to that organisation on the work of the network?

3. How would you describe the purpose of the network?

4. How effective is the network in achieving its purpose (Please circle a number)?

Not Effective Very Effective
1 2 3 4 5 6

5. Have you attended all meetings of the network?

Yes ☐ No ☐

If no, how many meetings of the network have you attended (Please circle)?

1 2 3 4 5 6 7 8 9 10 More than 10

6. Do you communicate with other members of the network outside the meetings?

Yes ☐ No ☐
If yes, how?

Face-to-Face ☐ Telephone ☐ Fax ☐ Email ☐ Letter ☐

7. How would you assess the level of participation of members of the network?

a) In meetings (Please circle) :-

Low High
1 2 3 4 5 6

b) Outside meetings (Please circle) :-
Low High
1 2 3 4 5 6

Please give reasons for your assessment below:

8. Please assess the nature of the network by responding to the following questions:-

QUESTION	RESPONSE
1. Do you think the network shares a vision of its future?	Possibly ☐ Probably ☐ Definitely ☐ Not at All ☐ Any other comment:
2. Do you feel that the network is effective in sharing its collective knowledge?	Possibly ☐ Probably ☐ Definitely ☐ Not at All ☐ Any other comment:
3. Do you feel that there is a sense of community within the network itself?	Possibly ☐ Probably ☐ Definitely ☐ Not at All ☐ Any other comment:
4. Does the network enable learning?	Possibly ☐ Probably ☐

	Definitely ☐ Not at All ☐ Any other comment:
5. Has the network created common working practices?	Possibly ☐ Probably ☐ Definitely ☐ Not at All ☐ Any other comment:
6. Does the network share information effectively?	Possibly ☐ Probably ☐ Definitely ☐ Not at All ☐ Any other comment:

PART TWO: USE OF INFORMATION & COMMUNICATION TECHNOLOGIES

Do you use:- Email Yes ☐ No ☐	If yes, how often:-	And, for what purpose:-
Do you use:- Internet Yes ☐ No ☐	If yes, how often:-	And, for what purpose:-
Do you use:- Mobile Phone Yes ☐ No ☐	If yes, how often:-	And, for what purpose:-
Do you use:- Text Messaging Yes ☐ No ☐	If yes, how often:-	And, for what purpose:-

PART THREE: WHY YOU ARE INVOLVED IN THE GROUP

Please tell us a little bit about yourself which describes why you are personally involved with the network:

PART FOUR: PERSONAL DETAILS

Would you be willing to be interviewed as part of this research Yes ☐ No ☐
If yes, please complete details below:

Name:
Job Title (If any):
Organisation (If any):
Address:
Postcode:
Telephone:
Fax:
Email:

THANK YOU FOR YOUR ASSISTANCE

Appendix 4 – Interview Checklist

PRACTITIONER'S INTERVIEW CHECKLIST

QUESTION	✓
What is the relationship, if any, between the parent organisation's aims and objectives and those of the Community Empowerment Fund?	
How often is contact made and in what format?	
If no mention of relationship with Community Empowerment Fund, why?	
Why is there a lack of knowledge of the Community Empowerment Fund?	
How is working knowledge accumulated?	
What do you see as collective knowledge?	
How would you describe that sense of community?	
What do you understand by the term 'learning'?	
What are these common practices?	
How has this culture been created?	
Is there a difference between group insiders and outsiders?	
Do you feel a personal as well as a professional commitment to the network?	
Would you be prepared to participate in a focus group on this research into the community network?	
Any other comments?	

Appendix 5 - Keyword analysis

A keyword analysis was undertaken based on information gathered from observations, workshops, questionnaires, interviews and focus groups. It reveals a number of significant findings:

1. There is a general view that there is much under-utilised potential for collaborative working, the Third Sector needs to trust partners more and ICTs have a key role to play in building successful alliances. This will result in better links to appropriate resources.

2. There is a general view that there is a key role to be played by the sector in the regional framework but its voice needs to be stronger as it represents a cohort which would otherwise not be heard at all.

3. In general, there is a shared opinion that ICTs have a key role to play in creating bridging, bonding and linking social capital. In building alliances, bringing together the sector and linking innovation ICTs are seen as being capable of adding value to face-to-face networking. Face-to-face working is seen as the preferred means of working with ICTs supporting this activity.

4. In general, the relationship between the Third Sector and other governmental agencies deserves the epithet of a 'patchwork quilt' in its variation from agency to agency. Government Office North East is seen as a facilitator of discussion on policy issues while One North East is seen as absorbed by issues of economic development and fails to see the importance of community. The Local Authority finds it difficult to conceptualise the Third Sector with any element of homogeneity due, some say, to its pillarised structure. The sector, however, appears to lack the capacity to impact upon the other sectors.

5. The role of the Local Strategic Partnership is generally seen as a collection of individuals representing organisations involved in urban renewal trying to promote community involvement. It is interesting that there is an overall view that the Local Strategic Partnership is a collection of individuals attempting a mission which is seen as having differing levels of success. There is no evidence of belief that there is a sharing of collective knowledge.

6. The role of the community network is generally seen as a formal network of groups who are keen to influence policy. Respondents do not readily volunteer information as to the relative success of the community network's influence, however. It is generally thought that any network is a 'good thing' but a network is only as good as its nodes and connections. There is a strong feeling that the community network lacks an effective hub.

#	Keywords	Comments
1	Patchy/Maturity/Moribund/Politicised/ Fragmented/Cabal/Hero/Disparate/ Compartmentalised/Disorganised	*Overall the keywords tend to demonstrate the diversity of the sector as both positive and negative. The positive tends to be expressed from within the sector while the negative is an expression of other sectors. There is a tendency, in other sectors, for them to see themselves as better organised and less fragmented than the Third Sector.* *The term 'moribund' is clearly an extreme*

		view of the sector but does, in some ways, reflect, with greater depth, the previous point. It is difficult to assess the use of the term 'politicised' as the Third Sector is, quite obviously, engaged in political activity. Describing the Third Sector as a 'cabal' can be seen as a generalised reference to the inner core of any form of organisation.
2	Transparency/Engagement/ Involvement/Marginalised/Emergent/ Support/Consortia/Collective/Capacity/ Renaissance/Trust/Scale/Survive	*These responses illustrate the paradoxical tension between surviving change and transforming structures. A paradox often metaphorically referred to as stretching and elastic band with change at one end and structure at the other. The difficulty being the ability to create the correct tension in the elastic band.* *There is an emphasis on the Third Sector struggling for survival in a competitive world where the sector is not only in competition with other sectors but within the sector itself.* *There is a significant reference to the need to build greater capacity through the adaptation and transformation of alternative structures.*
3	Representative/Learning/Unconventional/ Courageous/Diversity/Capacity/Power/ Enabler/Partner/Innovation/Drivers/ Personalities	*There is a tendency to see the Third Sector's role within the regional government structure as very different from other sectors. Particular reference is made to the representation and facilitation role which is not necessarily prevalent in other sectors.* *As a result of this role, the Third Sector is seen as performing a crucial function in any future form and function of regional government.* *There appears to be an awareness of a key dynamic between the diversity of the sector and its functionality within existing and emergent frameworks.* *Finally, there is a recognition of the nature of the Third Sector being very much part of a shared learning environment. As a result, the sector is constantly seeking new forms of identity.*
4	Informality/Personality/Manipulating/ Strategy/Vision/Creative/Celebrating/ Multi-disciplinary/Multi-functional/ Democratise/Capacity/Partnership/ Influence/Conflict/Self-limiting	*There is a clear indication of an understanding of the need to balance chaos and order in the current organisational environment. In order to do this, multi-disciplinary and multi-functional ways of working need to be adopted.* *However, some doubt is expressed as to the sector's capacity to change to the extent needed to deal effectively with cross-sector alliances.* *There is a clear view that the sector is self-limiting in its ability to achieve the necessary level of transformation.*
5	Expertise/Debate/Intervention/Thematic/ Unclear/Access/Representation/ Influence/Learn/Provider	*In terms of relationships with other agencies, it is difficult to discern a pattern. This is perhaps, unsurprising, as relationships with agencies tend to differ on a on-to-one to basis. The nature of such relationships being reliant upon varying levels of trust and the role of personalities within the partner*

		organisations. *It is clear that organisations need to understand each other in terms of differences on organisational culture, networking capacity and communities of practitioners. The sector could explore the potential for building formal protocols for cross-sector alliances which take account of this.*
6	Delivery/Transforming/Cost/Power/ Motivation/Learn/Networks/Connecting/ Access/Support/Cascade/Commitment/ Gaps/Alienation/Face-to-face/Formal/ Threatening/Dependency/Collaborative/ Knowledge/Tools/Skills/Websites	*The use of ICTs within the sector provides the widest variation of views, but, the single unifying point of agreement is that ICTs cannot replicate face-to-face working but can add greater value to it.* *Some respondents see ICTs as a means of control on cross-sector partnerships, particularly with public sector agencies, such as, Local Authorities.* *There is strong feeling that there is much potential for collaborative working using ICTs but this potential remains largely unfulfilled.* *A gap in knowledge, skills and access is seen between the under 35s and those between 35 and 55. Under 35s are perceived as using the Internet as a first point of information and knowledge while the older group rely on more traditional information gathering techniques. The younger group are also seen as being more trustful of email as a means of communication while the older group tend to prefer building trust through face-to-face working.* *There is a significant view that the sector lacks investment in ICTs and would benefit from greater technical support to enhance its capacity.*
7	Multi-dimensional/Grass-roots/ Co-ordinating/Targeting/Emerging/ Community/Involvement/Grouping/ Innovation/Linking/Piloting/Dialogue/ Geographical/Government-imposed/ Strategic/Joined-up/Shared	*The role of the Local Strategic Partnership is viewed as co-ordinating a multi-functional constellation of alliances which is both necessary and highly complex.* *Respondents are aware that the Local Strategic Partnership is aimed at strategic, joined-up working with increased dialogue across sectors. Some respondents, however, are uncertain as to whether or not the current partners are capable of achieving this objective.* *The partnership is seen as still in an emergent phase and in need of greater targeting of resources.*
8	Multi-dimensional/Grass-roots/ Co-ordinating/Targeting/Managing/ Improvement/Participatory/Involving/ Facilitate/Multi-agency/Inclusion/ Initiatives/Conduit/Connections/ Thematic/Gatekeeper/Engagement/ Chosen/Sustainable/Positive/Reinforce	*Interestingly, the keywords used to describe the role of the Local Strategic Partnership are similar to those used in response to the previous question.* *Respondents see the Local Strategic Partnership as capable of being better managed and levels of participation in decision-making are in need of improvement.* *Some respondents see the partnership as not being inclusive and providing a gateway to decision-making where the Local Authority, as the accountable body, is allowed to protect*

		its agenda-setting role. *Most respondents would like to see the Local Strategic Partnership demonstrate greater capability of long-term sustainability.*
9	Temporary/Flexible/Effective/Self-sustaining/Influence/Voice/Together	*The overall view is that the network is transient and over-flexible, lacking definition and not exhibiting much evidence of self-sustainability.* *Some feel that a high degree of flexibility is appropriate but needs to be 'managed' in some way. However, there is no reference to the form of appropriate management structures.* *It is acknowledged by all, that the concept of a community network is a worthwhile pursuit while it is seen as difficult to achieve.*
10	Development/Engagement/ Self-sustaining/Collaboration/ Empowerment/Partnership/Identity/ Articulation/Reforming/Maturity/ Community/Feedback/Consortia/Fuzzy	*The future of the network is seen in terms of developing different and varied forms of engagement. This will lead to higher levels of collaboration with a long-term vision of self-sustainability.* *On the other hand, some respondents see the network as failing to fully engage the community, providing inadequate feedback mechanisms and being 'fuzzy' in its strategy.* *Most are aware that the network is in search of an identity especially in the context of its relationship with the Local Strategic Partnership.*

Appendix 6 - Peer-reviewed published papers resulting from this thesis

Walker, G. (2002) *From Field of Dreams to Valley of Reality: Virtual Newcastle* Human Aspects of the Information Society Newcastle upon Tyne: University of Northumbria

Walker, G. (2003) If Community Empowerment's the Answer...What's the Question: The Case of Newcastle's Community Empowerment Fund *European Spatial Research and Policy* Volume 10 2003 No.2 pp.39-58

Walker, G. (2003) *Communities of Practice, Networks and Technologies...Community Networking in North East England* Paper presented to international conference on "Sharing Knowledge" at Universite Jean Moulin, LYON3, France (28/02/2003-01/03/2003)

Walker, G. (2004) *Meaning Flowing Through? VOICES and the Dialogue on Community Networking* Paper presented to CaTaC'04, University of Karlstaad, Karlstaad, Sweden (27/06/04-01/07/2004)

Walker, G. (2005) Knowledge, Community, Partnership and Participation in Coakes, E. & Clarke, S. (Eds) *Encyclopedia of Communities of Practice in Information and Knowledge Management* New York: IGI Publishing

Walker, G. (2005) *Building a Dynamic Model of Community Knowledge Sharing: The Case of Sunderland Community Development Network* Paper presented to the Second Annual Conference of the Community Informatics Research Network, Cape Peninsula University of Technology, Cape Town, South Africa (24/08/2005 -26/08/2005)

GLOSSARY

TERM	DEFINITION
Added Value	*The value added by the impact of a variable, or, number of variables, on a particular process.*
Ba	*The informal shared physical, virtual or mental space for relationship interaction and ultimately as a foundation for knowledge sharing.*
Charity Commission	*The body which regulates the administration and affairs of registered UK charities.*
Collaborative Technologies	*Hardware and software designed to help people involved in a common task achieve their goals.*
Community	*Any group of people with a shared set of values or beliefs.*
Community of Practice	*A group of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.*
Community Space	*A formal physical, virtual or mental space created by a group of people for sharing knowledge.*
Culture	*The shape, purpose and meaning of social formations.*
Groupthink	*A deterioration of mental efficiency, reality testing, and moral judgment that results from in-group pressures*
Knowledge	*A fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information.*
Knowledge Mapping	*The ability to match specific strategic and tactical business needs with the sources themselves.*
Legitimate Peripheral	*The relationships betweens newcomers and old-timers and their activities, identities and artefacts formed*

Participation	*through practice.*
Meta-network	*A network of social networks.*
North East of England	*The geographical area from the Tees Valley to the Scottish Border limited by the coast to the East and the Pennines to the West.*
Network	*An interconnected or interrelated chain, group, or system.*
Organisational Culture	*The shape, purpose and meaning of social formations within and between organisations.*
Organisational Learning	*A three phase activity involving sense-making, knowledge-building and decision-making*
Social Capital	*The collective value of all social networks and the inclinations that arise from these networks to do things for each other.*
Social Exclusion	*A condition where there is little participation and sharing of resources, poor information and knowledge flow, little choice, and individuals are subjected to external forces over which they have little control.*
Social Network	*A social structure made of nodes, which are generally individuals or organizations, that are tied by one or more specific types of relations*
Third Sector	*The section of the UK economy which is neither the public nor private sector and contains voluntary organisations, community-based organisations, charitable trusts and social enterprises.*

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